Mr. WATT of North Carolina changed his vote from "yea" to "present."

So the resolution was agreed to.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

PERSONAL EXPLANATION

Mr. QUINN. Mr. Speaker, earlier today I was unavoidably detained in returning to the Capitol, and I missed three votes. I missed rollcall No. 303, H.R. 1158. I would have voted "yes." On rollcall No. 304, House Concurrent Resolution 53, I would have voted "yes." On rollcall No. 305, House Resolution 135, I would have voted "yes."

PERSONAL EXPLANATION

Mr. COOLEY. Mr. Speaker, I was inadvertently detained and missed rollcall vote 305 on the resolution concerning the Oklahoma City bombing.

Had I been present, I would have voted "aye." I would like the RECORD to reflect my vote.

REMOVAL OF NAME OF MEMBER AS COSPONSOR OF HOUSE RESO-LUTION 123

Mr. ROHRABACHER. Mr. Speaker, I ask unanimous consent to remove the name of the gentleman from Washington, [Mr. NETHERCUTT] as a cosponsor of House Resolution 123. His name was added by error.

The SPEAKER pro tempore (Mr. COMBEST). Is there objection to the request of the gentleman from Califor-

There was no objection.

HYDROGEN FUTURE ACT OF 1995

Mr. QUILLEN. Mr. Speaker, by direction of the Committee on Rules, I call up House Resolution 136 and ask for its immediate consideration.

The Clerk read the resolution, as fol-

H. RES. 136

Resolved, That at any time after the adoption of this resolution the Speaker may, pursuant to clause 1(b) of rule XXIII, declare the House resolved into the Committee of the Whole House on the state of the Union for consideration of the bill (H.R. 655) to authorize the hydrogen research, development, and demonstration programs of the Department of Energy, and for other purposes. The first reading of the bill shall be dispensed with. General debate shall be confined to the bill and shall not exceed one hour equally divided and controlled by the chairman and ranking minority member of the Committee on Science. After general debate the bill shall be considered for amendment under the five-minute rule. It shall be in order to consider as an original bill for the purpose of amendment under the five-minute rule the amendment in the nature of a substitute recommended by the Committee on Science now printed in the bill. Each section of the committee amendment in the nature of a substitute shall be considered as read. At the conclusion of consideration of the bill for amendment the Committee shall rise and report the bill to the House with such amendments as may have been adopted. Any Member may demand a separate vote in the House on any amendment adopted in the Committee of the Whole to the bill or to the committee amendment in the nature of a substitute. The previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit with or without instructions.

The SPEAKER pro tempore. The gentleman from Tennessee [Mr. QUILLEN] will be recognized for 1 hour.

Mr. QUILLEN. Mr. Speaker, for the purpose of debate only, I yield the customary 30 minutes to the gentleman from California [Mr. BEILENSON], pending which I yield myself such time as I may consume.

(Mr. QUILLEN asked and was given permission to revise and extend his remarks and include extraneous material.)

Mr. QUILLEN. Mr. Speaker. House Resolution 136 is an open rule providing for the consideration of H.R. 655, the Hydrogen Future Act. The rule provides 1 hour of general debate divided equally between the chairman and ranking minority member of the Committee on Science.

The rule also makes in order as an original bill for the purpose of amendment the amendment in the nature of a substitute recommended by the Committee on Science now printed in the bill. Each section of the amendment shall be considered as read. Finally, the rule provides for one motion to recommit, with or without instructions.

Mr. Speaker, I would like to commend Chairman BOB WALKER and ranking minority member GEORGE BROWN for continuing their longstanding tradition of requesting an open rule for bills reported out of their committee. They set an example that I hope all committees will strive to follow whenever possible. As always, they did a great job.

Consumption of energy has grown at almost twice the rate of the growth of the population, and it is critical that we pursue the potential of alternative sources of energy such as hydrogen to address our long-term energy needs.

The Hydrogen Future Act authorizes appropriations for basic hydrogen research, development, and demonstration programs of the Department of Energy for fiscal years 1996, 1997, and 1998. The bill promotes Federal efforts to research hydrogen as an alternative fuel and ensures that hydrogen research is given priority by the Department of Energy.

Speaker, similar legislation Mr. passed the House by voice vote last Congress, and this open rule will allow Members the opportunity to address any concerns they may have.

Mr. Speaker, I urge adoption of this rule, and I reserve the balance of my time.

THE AMENDMENT PROCESS UNDER SPECIAL RULES REPORTED BY THE RULES COMMITTEE, 1 103D CONGRESS V. 104TH CONGRESS

[As of May 1, 1995]

Dula tima	103d Congress		104th Congress	
Rule type		Percent of total	Number of rules	Percent of total
Open/Modified-open 2 Modified Closed 3 Closed 4	46 49 9	44 47 9	22 8 0	73 27 0
Totals:	104	100	30	100

¹This table applies only to rules which provide for the original consideration of bills, joint resolutions or budget resolutions and which provide for an amendment process. It does not apply to special rules which only waive points of order against appropriations bills which are already privileged and are considered under an open amendment process under House rules.

² An open rule is one under which any Member may offer a germane amendment under the five-minute rule. A modified open rule is one under which any Member may offer a germane amendment under the five-minute rule subject only to an overall time limit on the amendment process and/or a requirement that the amendments the preprinted in the Congressional Record.

³ A modified closed rule is one under which the Rules Committee limits the amendments that may be offered only to those amendments designated in the special rule or the Rules Committee report to accompany it, or which preclude amendments to a particular portion of a bill, even though the rest of the bill may be completely one to amendments.

⁴ A closed rule is one under which no amendments may be offered (other than amendments recommended by the committee in reporting the bill).

SPECIAL RULES REPORTED BY THE RULES COMMITTEE, 104TH CONGRESS

[As of May 1, 1995]

H. Res. No. (Date rept.)	Rule type	Bill No.	Subject	Disposition of rule
Res. 38 (1/18/95)	0	H.R. 5	Unfunded Mandate Reform	A: 350-71 (1/19/95).
Res. 44 (1/24/95)	MC	H. Con. Res. 17	Social Security	A: 255-172 (1/25/95).
		H.J. Res. 1	Balanced Budget Amdt	
Res. 51 (1/31/95)	0	H.R. 101	Land Transfer, Taos Pueblo Indians	A: voice vote (2/1/95).
Res. 52 (1/31/95)	0	H.R. 400	Land Exchange, Arctic Nat'l. Park and Preserve	A: voice vote (2/1/95).
Res. 53 (1/31/95)	0	H.R. 440	Land Conveyance, Butte County, Calif	A: voice vote (2/1/95).
Res. 55 (2/1/95)	0	H.R. 2	Line Item Véto	A: voice vote (2/2/95).
Res. 60 (2/6/95)	0	H.R. 665	Victim Restitution	A: voice vote (2/7/95).
Res. 61 (2/6/95)	0	H.R. 666	Exclusionary Rule Reform	A: voice vote (2/7/95).
Res. 63 (2/8/95)	MO	H.R. 667	Violent Criminal Incarceration	A: voice vote (2/9/95).

CONGRESSIONAL RECORD—HOUSE

SPECIAL RULES REPORTED BY THE RULES COMMITTEE, 104TH CONGRESS—Continued
[As of May 1, 1995]

H. Res. No. (Date rept.)	Rule type	Bill No.	Subject	Disposition of rule
H. Res. 69 (2/9/95)	0	H.R. 668	Criminal Alien Deportation	A: voice vote (2/10/95).
H. Res. 79 (2/10/95)	MO	H.R. 728	Law Enforcement Block Grants	A: voice vote (2/10/95).
H. Res. 83 (2/13/95)	MO	H.R. 7	National Security Revitalization	PO: 229-100; A: 227-127 (2/15/95).
H. Res. 88 (2/16/95)	MC	H.R. 831	Health Insurance Deductibility	PQ: 230-191; A: 229-188 (2/21/95).
H. Res. 91 (2/21/95)	0	H.R. 830	Paperwork Reduction Act	A: voice vote (2/22/95).
H. Res. 92 (2/21/95)	MC	H.R. 889	Defense Supplemental	A: 282–144 (2/22/95).
H. Res. 93 (2/22/95)	MO	H.R. 450	Regulatory Transition Act	A: 252–175 (2/23/95).
H. Res. 96 (2/24/95)	MO	H.R. 1022	Risk Assessment	A: 253–165 (2/27/95).
H. Res. 100 (2/27/95)	0	H.R. 926	Regulatory Reform and Relief Act	A: voice vote (2/28/95).
H. Res. 101 (2/28/95)	MO	H.R. 925	Private Property Protection Act	A: 271-151 (3/1/95)
H. Res. 104 (3/3/95)	MO	H.R. 988	Attorney Accountability Act	A: voice vote (3/6/95)
H. Res. 103 (3/3/95)	MO	H.R. 1058	Securities Litigation Reform	,
H. Res. 105 (3/6/95)	MO			A: 257-155 (3/7/95)
H. Res. 108 (3/6/95)	Debate	H.R. 956	Product Liability Reform	A: voice vote (3/8/95)
H. Res. 109 (3/8/95)	MC			PQ: 234-191 A: 247-181 (3/9/95)
H. Res. 115 (3/14/95)	MO	H.R. 1158	Making Emergency Supp. Approps.	A: 242–190 (3/15/95)
H. Res. 116 (3/15/95)	MC	H.J. Res. 73	Term Limits Const. Amdt	A: voice vote (3/28/95)
H. Res. 117 (3/16/95)	Debate	H.R. 4	Personal Responsibility Act of 1995	A: voice vote (3/21/95)
H. Res. 119 (3/21/95)	MC			A: 217–211 (3/22/95)
H. Res. 125 (4/3/95)	0	H.R. 1271	Family Privacy Protection Act	A: 423-1 (4/4/95)
H. Res. 126 (4/3/95)	0	H.R. 660	Older Persons Housing Act	A: voice vote (4/6/95)
H. Res. 128 (4/4/95)	MC	H.R. 1215	Contract With America Tax Relief Act of 1995	A: 228–204 (4/5/95)
H. Res. 130 (4/5/95)	MC	H.R. 483	Medicare Select Expansion	A: 253–172 (4/6/95)
H. Res. 136 (5/1/95)	0	H.R. 655	Hydrogen Future Act of 1995	()

Codes: O-open rule; MO-modified open rule; MC-modified closed rule; C-closed rule; A-adoption vote; PQ-previous question vote. Source: Notices of Action Taken, Committee on Rules, 104th Congress.

Mr. BEILENSON. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, I thank the gentleman from Tennessee [Mr. QUILLEN] for yielding.

Mr. Speaker, we join our colleague from Tennessee in supporting the open rule for this bill. The hydrogen research enjoys bipartisan support. As our colleagues will recall, we passed a similar bill last August by a voice vote. Several amendments were considered at that time and four or five perhaps are expected to be offered today.

All of us, but perhaps especially those of us from regions such as southern California that have severe air pollution problems, are particularly interested in and fully support research that will lead to a clean burning, environmentally safe, energy source that is a viable substitute for fossil fuels. For that reason we support carefully written legislation that will give the impetus needed to determine whether or not hydrogen can be an energy source that is economically as well as environmentally acceptable.

We do, however, have some specific concerns about several provisions of the bill as reported. At a time of huge spending cuts in so many Federal Government programs, this bill provides for a steep increase in funding for hydrogen research. In fact, the bill authorizes more funding for the hydrogen program than either the Hydrogen Technology Advisory Panel, which advises the Department of Energy on hydrogen R&D activities, or the President requested.

An amendment will be offered by the gentleman from Massachusetts [Mr. OLVER] to reduce the authorization levels in the bill to those recommended by the panel. Interestingly, the advisory panel's experts believe that necessary research can be carried on with about \$31 million less than what H.R. 655 authorizes.

While increasing annual spending on the hydrogen program dramatically, the Committee on Science imposes in this bill a cap on spending for the Energy Department's energy supply research and development activities.

That decision, which the chairman of the committee defends as the best way to make the bill deficit neutral, means that the Department will have to limit promising research in areas other than that to develop hydrogen technology, and with no guidance from Congress on where those cuts will be made. In fact, we have no way of knowing the true impact of this arbitrary spending cap.

As the ranking member of the Committee on Science, the gentleman from California [Mr. Brown] has argued, instead of imposing the cap, we should be making a rational judgment about which programs should be cut to offset the cost of the hydrogen research program. The gentleman from California [Mr. Brown] will offer an amendment to strike the cap so we will have the opportunity to debate this controversial provision.

Frankly, Mr. Speaker, we question these decisions even more because we are uncertain about how much interest there is in private investment in hydrogen research. As the additional views in the committee report on the bill note, if hydrogen were so promising and so near-term, we would have already seen much more private sector investment without perhaps requiring this much Government encouragement.

Finally, Mr. Speaker, I would just like to take a moment to commend the ranking member of the Committee on Science, Mr. Brown, and the chairman, Mr. Walker, for the good work they have done over the years, not only in this area, but also in so many vitally important to our future. As a former member of the Committee on Science myself, I know just how difficult this subject matter is they deal with, and just how few of us understand it as well as these two gentlemen do.

Mr. Speaker, we know that hydrogen is promising, even if its popularity or convenience as a major fuel is still uncertain. We support the open rule and encourage our colleagues to support it so we may proceed today with consid-

eration of H.R. 655 and the amendments which may be offered to it.

Mr. Speaker, I reserve the balance of my time.

Mr. QUILLEN. Mr. Speaker, I yield 2 minutes to the distinguished gentleman from Pennsylvania [Mr. WALKER], chairman of the Committee on Science.

Mr. WALKER. Mr. Speaker, I thank the gentleman from Tennessee for the time.

Mr. Speaker, I am pleased to rise in support of this open rule which provides for consideration of H.R. 655, the Hydrogen Future Act of 1995.

Our committee, the Committee on Science, has a long history of requesting open rules for this legislation, and I am pleased to join with my good friend, the gentleman from California [Mr. Brown], the ranking minority member of the committee, to continue in that tradition with this open rule here today. I want to thank the Committee on Rules for the consideration they gave to our committee on this and for bringing forth the particular item under an open rule.

As I will discuss in more detail when we proceed to debate on the bill itself, the hydrogen research legislation will direct the Department of Energy to refocus more of its resources to basic research on this nonpolluting, abundant, renewable fuel. Great care has been taken to draft a bill which is budget neutral so as not to increase the deficit. We are interested rather in reprioritizing the Department's research efforts.

Mr. Speaker, the gentleman from California [Mr. Brown] and I have shared a deep interest in hydrogen research during the time we have served together on the Committee on Science, and I am pleased we were able to move this bill through the committee so early in this session. I understand that he has some concerns about the funding provisions and that other Members may have amendments. I welcome that debate. I think it will help to clarify the bill and I am happy to support this

rule to provide for the upcoming discussion.

Mr. Speaker, I urge adoption of the rule.

Mr. BEILENSON. Mr. Speaker, for purposes of debate only, I yield 3 minutes to the gentleman from Ohio [Mr. Traficant].

(Mr. TRAFICANT asked and was given permission to revise and extend his remarks.)

Mr. TRAFICANT. Mr. Speaker, I want to rise in support of this legislation. I want to commend the chairman, Mr. WALKER, and the ranking member, Mr. BROWN, for the work that has been done trying to foster research and development into specific areas that I believe will help our country.

I was able to attach an amendment in the markup process that deals with section 7, the technology transfer area. It states that:

The Secretary shall foster the exchange of generic nonproprietary information and technology developed pursuant to section 5 among industry, academia, and the Federal Government. The Secretary shall ensure that economic benefits of such exchange of information and technology will accrue to the United States economy.

Now, I know everybody is trying to finish this bill. It is a good bill. The chairman has done a good job. But the language is that this exchange of information shall accrue to the benefit of the United States economy.

I have a little amendment that says in the report process, when they do all of the reports back to Congress, that they also give special emphasis to section 7 and let us know if there is an accrual of benefit to the United States economy.

□ 1415

From what I understand, the amendment is going to be accepted. I appreciate that. I think it strengthens the bill. I think it is time that Congress asked for these things, if the economy is supposed to be strengthened by our legislative action. Many times we do not ask to find out if it really happens. So in this case I am, and I am glad to see that perhaps we will enact it.

Mr. BEILENSON. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Mr. QUILLEN. Mr. Speaker, I yield back the balance of my time, and I move the previous question on the resolution.

The previous question was ordered.

The resolution was agreed to.

A motion to reconsider was laid on the table.

The SPEAKER pro tempore (Mr. COMBEST). Pursuant to House resolution 136 and rule XXIII, the Chair declares the House in the Committee of the Whole House on the State of the Union for the consideration of the bill, H.R. 655.

□ 1416

IN THE COMMITTEE OF THE WHOLE

Accordingly, the House resolved itself into the Committee of the Whole

House on the State of the Union for the consideration of the bill (H.R. 655) to authorize the hydrogen research, development, and demonstration programs of the Department of Energy and for other purposes, with Mr. HANSEN in the chair.

The Clerk read the title of the bill.

The CHAIRMAN. Pursuant to the rule, the bill is considered as having been read the first time.

Under the rule, the gentleman from Pennsylvania [Mr. WALKER] is recognized for 30 minutes, and the gentleman from California [Mr. Brown] is recognized for 30 minutes.

The Chair recognizes the gentleman from Pennsylvania [Mr. WALKER].

Mr. WALKER. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, today we consider on the floor of this House, H.R. 655, the Hydrogen Future Act of 1995.

Imagine a fuel which is unlimited in supply and is environmentally friendly. Imagine a fuel which produces no carbon dioxide or other noxious pollutants. Imagine a fuel that produces only water when it's burned. Imagine a fuel that can be produced entirely within the borders of the United States. Imagine a fuel that finds a virtually limitless supply in water. There is such a fuel and its name is hydrogen, the fuel of the 21st century.

Ever since the oil crises of the 1970's and the recent conflict in the gulf, Americans have been justifiably concerned that our energy supply is not guaranteed. This concern has been heightened by the fact that our hydrocarbon resources are limited, and it has been increasingly expensive to produce domestically.

The shipping and burning of hydrocarbon products has been a major cause of pollution. We all know the cost of dealing with the effects of pollution in terms of health care and restoring our environment. The Clean Water Act, the Clean Air Act, Superfund, and other legislation have generated numerous expensive regulations in an attempt to address health and pollution concerns. The use of hydrogen as a fuel would help solve these issues.

Hydrogen holds tremendous promise as an environmentally benign energy source. It is practically limitless in supply and the byproduct of its combustion is the same water that is used to produce this gas. Its common use faces large technical hurdles, however, especially in production and storage.

The Hydrogen Future Act will focus Federal research on the basic scientific fundamentals needed to provide the foundation for private sector investment and development of hydrogen as a fuel without increasing overall funding for the Department of Energy energy supply research and development programs.

During the 1980's and 1990's, the Committee on Science held several hearings on hydrogen. In 1989, the Renewable Energy and Energy Efficiency Technology Competitiveness Act, Pub-

lic Law 100-218, directed DOE to provide a separate line-item for hydrogen research in its budget request. In 1990, Congress passed the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act, Public Law 101-566, which directed the Department of Energy to develop a hydrogen research program implementation plan. Then in 1992, section 2026 of the Energy Policy Act, Public Law 102-486, further addressed hydrogen research and development. The legislation we are considering today, H.R. 655, the Hydrogen Future Act of 1995, continues Congress' intent to prioritize hydrogen research.

H.R. 655 focuses the hydrogen program at the Department of Energy on basic research, development, and demonstration. The bill limits demonstration to validations of the technical feasibility of theories or processes.

The legislation requires a cost-sharing commitment by the private sector for any research, development, or demonstration project funded under the bill. It also requires that any financial assistance given under the bill: First, could not be obtained from the private sector, and second, must be consistent with GATT provisions on Federal cost-sharing.

The bill directs that the Department of Energy's hydrogen program should be a competitive, peer reviewed process, and that a percentage of the authorized funding be available for basic research into highly innovative technologies. Both of these provisions will ensure that people with new ideas have the opportunity to interact with DOE's resources and facilities.

Although this bill increases funding for hydrogen research, it is CBO certified budget neutral. H.R. 655 requires corresponding offsets to pay for hydrogen research by freezing the Department of Energy's overall energy supply research and development account at fiscal year 1995 levels. By offsetting funding from other DOE programs, the legislation does not ask the taxpayers to bear any additional costs.

The development of hydrogen as a fuel will also conserve our vital feed-stocks of fossil fuels, freeing them solely to produce plastics, medical supplies, and other useful products. Using hydrogen in our cars, planes, and homes would also save billions of dollars in energy costs related to byproducts, pollution, regulations, and medical expenses. Hydrogen is the answer to fill the energy needs of our future. We are looking for a nonpolluting, abundant, renewable fuel. Hydrogen is that fuel!

After all, energy produced here in the United States grants security. Security not only from disruptive conflicts in the Middle East and elsewhere, but also financial security. More than half our trade imbalance is due to the import of oil. With domestically produced hydrogen as a fuel choice, we can substantially reduce our trade deficit.

So I would ask support for H.R. 655, the Hydrogen Future Act. It is good energy policy. It is good environmental policy. It is good research policy, and it is good budget policy.

This is exactly the type of futuristic technology-based solution to some old problems that face our society and have been so often addressed by regulation and subsidies in the past.

More precisely, it is a vision of an opportunity society that many of us in this country have been talking about over the last few weeks and over the last several years.

This is a chance to begin to live the vision. So I would ask the support of the Members for this bill.

Mr. Chairman, I reserve the balance of my time.

Mr. BROWN of California. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, I am pleased to be on the floor today on the first of what I hope will be numerous Science Committee authorization bills. While H.R. 655, the Hydrogen Future Act, represents only a single, relatively small, energy R&D program, this bill is a good opportunity to begin to illustrate the importance of the Federal investment in science and technology.

I recognize that the majority of Members who serve here today have served less than two terms. So it is not surprising that many Members have very little information about the purpose, extent, or accomplishments of the Federal science and technology investment. As we tackle the task of cutting spending over the next few months, I am deeply concerned that science and technology funding will become a politically expedient sacrificial lamb for balancing the budget.

I know that the chairman of the Science Committee, the distinguished gentleman from Pennsylvania, shares those concerns and is working to educate his colleagues on the Budget Committee about the importance of science and technology funding. Indeed, the Federal Government's investment in science and technology has long had strong bipartisan support in recognition of their critical role in addressing such national needs as economic growth, environmental quality, defense, and health care.

The chairman and I have our disagreements in certain areas, as indeed we have on the bill before us. But we do share a belief in the fundamental importance of science and technology to a nation that seeks to remain preeminent in the next century. I look forward to working with him over the next few months to ensure that science and technology continue to receive a high priority in the national budget.

H.R. 655, the Hydrogen Future Act, augments a small, but important, program within the overall Government effort in research and development and continues a long tradition of bipartisan support for the development of hydrogen as an economically viable and en-

vironmentally friendly fuel. The committee passed the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act in 1990 on a bipartisan basis, and extended the program in the Energy Policy Act of 1992.

I want to commend the chairman, Mr. Walker, for his efforts in bringing this bill through the committee and to the floor. Mr. Walker and I have long shared a belief in the future of hydrogen. This bill represents Mr. Walker's most recent effort in his long-standing support for hydrogen-related research and development within the Department of Energy. It will provide needed new focus and additional resources for the Department's programs.

As the gentleman from Pennsylvania has indicated in his remarks, hydrogen is a promising fuel with many potential applications for replacing more polluting energy sources. Hydrogen becomes particularly attractive if we can find a way to produce it using solar or renewable energy sources rather than from petrochemical feedstocks. The DOE, working with industry and academia, is working on a number of fronts which could provide critical breakthroughs to making hydrogen a cost-effective alternative to conventional fossil fuels.

While I generally support this bill and DOE's hydrogen research program, I have a number of procedural concerns and disagreements with several specific provisions. I would note that the administration has expressed similar reservations.

First, Mr. Chairman, I am disturbed that this bill is being brought to the floor ahead of a comprehensive energy research and development reauthorization. Hydrogen research is unquestionably an important program, particularly given the need to find replacements for fossil fuels which can meet our energy needs with less pollution. At the same time, DOE is supporting equally important research devoted to other promising nonfossil energy sources, such as solar energy, renewable fuels, and fusion. In addition, given our near-term dependence on fossil fuels, other DOE research programs designed to increase the efficiency of fossil fuels and reduce their polluting effects are also important. And research on nuclear fission designed to increase safety and reduce radioactive waste deserves continued support.

However, the bill before the Members today authorizes only a single DOE R&D program, which precludes us from setting priorities among all of the energy R&D programs. Members will have no opportunity today to reallocate energy R&D funds, a process that is all the more important given the fact that the total amount of funding for these programs may well be cut far below the President's fiscal year 1996 budget request.

Instead, Members are being asked to approve a 300 percent increase in the funding for a single energy R&D program—an increase well above the

President's budget request of \$7.3 million, and above the levels recommended by an independent, external advisory panel. Singling out hydrogen R&D for aggressive growth in a declining budget envelope suggests that hydrogen ought to be DOE's highest research priority. Members may or may not agree with that, but my point is that we will never know because Members will have no opportunity to vote on different priorities.

We need a balanced research portfolio that, taken as a whole, is most likely to provide us with cost-effective and reliable energy supplies for the future. For that reason, I am very reluctant to support the level of increases contained in the bill without a better understanding of the effect of such funding levels on other important DOE energy R&D programs. In understand that Mr. OLVER will be offering an amendment to reduce the authorization levels to a more reasonable level, which I will support.

Second, I cannot support the provision in the bill which limits the obligations for DOE's energy supply R&D funding at fiscal year 1995 levels for the next 3 fiscal years. This is simply bad policy masquerading as political cover. The cap was included so that supporters of the bill could claim that the increased funding authorized for hydrogen would be offset by unidentified cuts somewhere else in DOE's energy supply research and development activities.

But the cap won't even do what is proponents suggest. Instead, what it really does is cut \$250 million across-the-board from the requested budget for dozens of DOE research programs and DOE's environmental clean-up efforts—programs that the bill does not even authorize. Yet the proposed increase in hydrogen research is only about \$18 million the first year—and only if Congress appropriates, and the Department spends, the entire authorized amount. The fact is that the cap does not force DOE to spend more on hydrogen.

Further, as the Members well know, overall spending is controlled by the budget caps and the appropriations process. This cap isn't going to save the taxpayers any money; all it does is to tie our hands in trying to set budget priorities by creating artificial and arbitrary fences around some programs.

I intend to offer an amendment to strike section 10(b) of the bill which contains this limitation and will speak more about it at that time.

Finally, Mr. Chairman, I would note that this bill raises some interesting issues in the context of a broader debate about the best way to promote the economic and social benefits of this Nation's investment in science and technology. The gentleman from Pennsylvania has been very critical of a number of applied technology programs, like the Advanced Technology Program, at the Department of Commerce. ATP helps companies pursue

novel ideas in advanced technologies—such as hydrogen—by supporting research, development, and demonstration activities at a 50-percent cost share. The chairman of the committee as well as other Members on that side of the aisle have argued that such programs are examples of "corporate welfare" that distort the market by having the Government pick and choose "winners and losers."

Ironically, in my view, H.R. 655 has many similarities to the ATP program. While the bill speaks specifically about basic research, the reality is that the major barrier to the increased use of hydrogen as a fuel is an economic one. We know how to produce, store, and transport hydrogen; we know how it works as a fuel and how it can be used in fuel cells to generate electricity. What we need to learn is how to produce, store, and transport hydrogen more cheaply so that it can economically compete with other energy sources. To my ear, that sounds suspiciously like an applied technology program that does not differ dramatically from the ATP and other technology development and demonstration programs.

The language in H.R. 655 is a valiant effort to cloak this inconvenient point in semantic ambiguities. But it cannot be seriously questioned that the primary push of the technology effort must be to cut hydrogen's cost. Industry will never pick up the final stage of demonstration and commercialization unless the underlying Government-supported work shows that hydrogen production, transportation, and storage is not only technically feasible, but also economically attractive. Fortunately, H.R. 655 seems to authorize precisely such a program.

What ever our semantic disagreements, the important point is that the bill does represent another step forward in developing hydrogen as a national energy resource, and for that reason I support the bill. I could support it more enthusiastically if the amendments we offer this afternoon are adopted.

HYDROGEN/ATP COMPARISON

This table shows the great similarities between the Advanced Technology Program of the Department of Commerce and the Department of Energy's Hydrogen Research Program. At least as much as the hydrogen program, ATP focuses on long-term noncommercial research and development with potential for great scientific discovery. Also, it stops earlier in the development cycle than the hydrogen program. In short, if a Member supports the hydrogen program, he or she should support the ATP program as well.

Hydrogen program ATP program

Multi-year grants. Three to five year time horizon.
Funds research, development, and demonstrations leading to pro-

demonstrations leading to production, storage, transport, and use of hydrogen for industrial, residential, transportation, and utility applications.

Majority of research done by national laboratories. Multi-year grants. Three to five year time horizon.
Funds high risk, high payoff re-

unds high risk, high payoff research and development in fields identified by industry as critical to future success of key industries. Emphasis on generic technologies that can benefit whole industries.

industries.

Maximum of ten percent can be done by government laboratory.

Hydrogen program

Majority of industry grants so far to large business including Air Products and Chemicals, Praxair, and AD Little.

No limit on size of grants .

20% industry cost-share for research and development. 50 percent cost-share for demonstration. Will fund incremental but important demonstrations such as increasing the efficiency of steam reforming of natural g ATP program

Grants evenly split between big business and small business. Big business and potential suppliers sometimes team together (e.g. auto industry). \$2 million limit on grants to individ-

ual companies.
50% cost-share minimum required for research and development.
Pre-commercial scale demonstra-

tions and improvements to existing products are ineligible for funding. Marketing surveys and commercialization studies not eligible.

□ 1430

Mr. Chairman, I yield 6 minutes to the gentleman form Indiana [Mr. ROE-MER].

Mr. ROEMER. Mr. Chairman, I would just like to congratulate the gentleman from Pennsylvania [Mr. WALKER] and the gentleman from California [Mr. Brown] for their hard work on this important legislation.

H.R. 655 will support very, very vital work for us to look into the hydrogen field and research, development, and demonstration projects. This is a thoughtful bill. I think it has very important energy ramifications for this country's policies in the future.

We need to become more environmentally friendly. We need to find ways to produce and transport hydrogen more efficiently. As the gentleman from Pennsylvania [Mr. WALKER], and the former chairman, the gentleman from California [Mr. Brown], have said so articulately, we know what many of the problems are, but we need to invest in ways to more efficaciously solve the problems we are faced with in transporting and delivering this very potentially vital source of clean burning energy to our country.

Mr. Chairman, I think that the gentleman from Pennsylvania [Mr. WALK-ER] has also talked in a very, very forceful way about the policy on the budget. He has said that we offset the increase in the budget, and as we are coming back from a break where we have heard in our town meetings that our constituents are very concerned about the deficit, we want to make sure that this does not call for tax increases, which it does not. We want to make sure that this policy has vision with relation to the rest of our Energy Department, the DOD, and the National Laboratories.

I would say that this is a very good bill, and I would encourage my colleagues to support it. I do have two concerns, not problematic, but concerns that I would just express to the distinguished chairman that I hope to work with him on over the course of the next few months. One would be that we do have a very, very good vision for hydrogen in this bill, but we do need to develop a vision for our Department of Energy.

We are bringing out today on the floor one splinter, one very small area of our energy policy. We need to come to the floor with our energy authorization bill. We need to do that both for

reasons of the budget, because we are going to be cutting some programs and reorganizing some programs. We need to show the American people where our priorities are in terms of the National Laboratories, which National Laboratories as our treasures are we going to keep, which ones might we downsize, which ones can become more effective.

I have introduced legislation with respect to the National Laboratories. I look forward to working with the chairman and the chairman of the subcommittee on that legislation.

Second, Mr. Chairman, I would say I have a concern in terms not only of the vision but of the budget.

Mr. Chairman, as we bring one part of our policy on energy to the floor with an increase, how does this affect the other policies and programs within the Department of Energy? I think the chairman has articulated some of the ramifications and ancillary effects of those programs. We look forward in our hearings and in our markups in energy on our committee to continue to discuss these in broader ways, and in more specific ways. I congratulate the chairman of the committee for a thoughtful bill on new U.S. policy with hydrogen and look forward to voting for this piece of legislation.

Mr. WALKER. Mr. Chairman, I yield myself 2 minutes.

Mr. Chairman, I thank the gentleman from Indiana for his statement. I just wanted to assure him, based upon the one concern that he raised with regard to overall authorizations, that it is our intention to move aggressively ahead in that area. As the gentleman knows, we have already held hearings in the subcommittees on a number of these programs, and our intention would be that as soon as the budget numbers are fairly firm, which should be within a matter of the next couple of weeks, that at that point the authorizing committees will be able to move with their authorizations. I share the gentleman's desire to see to it that those organizations are moving so they provide some guidance in the appropriations process, but also that they provide the kind of vision statement that I think we need to make in a tough budget situation. We need to begin to lay out how we are going to both balance the budget and at the same time maintain an aggressive science and technology policy for the country, and I think that is going to be some of the very, very instrumental work that the various subcommittees are going to be assigned to do. I am going to try to give those subcommittees the latitude that they need to work within budget caps, but to prioritize the science of this country in a way that makes sense within that budget constraint.

Mr. ROEMER. Mr. Chairman, will the gentleman yield?

Mr. WALKER. I am happy to yield to the gentleman from Indiana.

Mr. ROEMER. Mr. Chairman, I would just say, and I know the gentleman has

much more experience upon this committee than I do, I have only been on the committee since 1991, but as a member of the authorizing committee, I would hope that we could get this bill out to give guidance to the appropriators as to what the new priorities in this 104th Congress might be for spending on new technology, on programs such as hydrogen. I think that the expertise shown by this committee in the past has been a very valuable one.

Also, the chairman and the ranking member would be not only working with the appropriators on the House side, but hoping to work with the Senators on the other side of the body so we do pass an authorizing bill. I think that is very important, not just institutionally, but given that the Members of that committee do have a great deal of expertise in this technology and in this field of science.

Mr. WALKER. Mr. Chairman, I would just say to the gentleman that that is certainly my hope, not only in the energy area but in the other areas of jurisdiction of this committee.

I would say to the gentleman that we are going to be bringing forth a budget document. That will have a series of assumptions in it. Those assumptions will simply assure that you can in fact meet the budget targets we are going to lay out, but they are only that, they are assumptions.

It is going to be the work of the authorizing committee to take those budget numbers and decide what the priorities are that our committee wishes to lay forth on the Nation. I think then that that will provide the kind of guidance that the appropriators will respond to, so there is going to have to be a lot of interactive work over the next several months here, but I think it is interactive work that will produce a far more stable policy than we have seen in the recent past.

Mr. ROEMER. Mr. Chairman, if the gentleman will continue to yield, I would only conclude by saying that as a Member of the Committee on the Budget, our distinguished chairman will be able to make sure that we get that floor time and have these authorization bills come to the floor on time.

Mr. WALKER. As I say to the gentleman, yes, I have had an opportunity to participate in the budget deliberations, but the budget deliberations should be seen only for what they are. They are a road map in terms of overall numbers, but it is going to be the work of our committee that is going to literally lay forth the policy, and I think that is the kind of important work this committee should be doing.

Mr. ROEMER. Mr. Chairman, I thank the gentleman.

Mr. WALKER. Mr. Chairman, I reserve the balance of my time.

Mr. BROWN of California. Mr. Chairman, I yield myself 2 minutes.

Mr. Chairman, let me continue that interesting discussion a little bit. First, I appreciate the dialog with regard to the need to move the author-

ization legislation ahead promptly, and I hope that the Chair of the Committee on Science will be able to do this.

As I think I have pointed out to him, the way the schedule has slipped here, we may not actually see Committee on the Budget numbers for at least the 2 weeks that the gentleman referred to, possible a little bit longer, and the window for authorization bills is going to be correspondingly shorter. I know the gentleman recognizes that.

If we have done all of the necessary preparatory work in the subcommittee and in the full committee, we can still move authorizing legislation, and I will assure the gentleman of my very strong desire to cooperate in this.

Again, Mr. Chairman, referring to the caps situation, however, authorizing bills are caps. Appropriators cannot exceed those limits when it comes to spending money. What the gentleman has done in this bill is to authorize one program and in effect cap that, but then in addition to that, he has capped more than 10 times as much that are not in the subject matter of this bill; in other words, other forms of energy supply R&D.

I would contend that is more appropriately done in the Committee on the Budget itself as it considers energy legislation, and I would make a bigger argument about it, and I will, probably, when my amendment comes up, but actually, as he well knows, the whole question may be moot if in fact the Committee on the Budget decides and the administration decides that we will have a reduction in energy expenditures over the next 3 years, in which case the cap, which I think is inappropriate to this bill, would nevertheless not have any impact, and I would see no harm in it at that point.

Mr. Chairman, I yield 3 minutes to the gentleman from Florida [Mr. HAST-INGS].

Mr. HASTINGS of Florida. Mr. Chairman, I thank the gentleman for yielding time to me.

Mr. Chairman, I rise in support of H.R. 655, and I commend the chairman and ranking member of the Committee on Science for bringing this measure to the floor. I do, however, have several reservations, and I believe that they are shared by many on the Democratic side of the aisle.

First, the bill elevates hydrogen research above all other research priorities at the Department of Energy. While I hope that hydrogen will be an important fuel in the future, I believe that other research and development programs in the Department are also important and deserve authorization.

Second, H.R. 655 caps spending in the Energy Supply Research and Development account at fiscal year 1995 levels. All of us want us to cut the deficit, but I do not believe any of us advocate placing arbitrary caps on programs without a discussion of their merits. The Science Committee had no hearing record on these programs on which to base a decision. I suspect that the cap

might be a political tactic to prove that more money will not be spent by the Department to cover the increases mandated in this bill.

Finally, the increases authorized by the bill are higher than requested by an outside expert hydrogen advisory panel to the Department, and the Department has no plans to spend the additional funds. In this time of budget cutting, I cannot support sending money to programs that lack a plan to us it, while action plans are starved for proper funding.

I am hopeful that these points will be addressed in the debate, and I look forward to an improved bill to send to the Senate. Hydrogen research, development, and demonstrations are important to our Nation's future, and I support the program authorized in the bill.

Mr. WALKER. Mr. Chairman, I yield myself 1 minute.

Mr. Chairman, I thank the gentleman from Florida for his statement. I understand his concerns. The only thing I would say to the gentleman is that the most recent update of the Hydrogen Technology Panel's numbers in fact indicate that that particular panel will have numbers that are more than what are in this bill, not less, so that we are in fact in the bill not coming up to what the panel is prepared to request.

I have a letter here from what particular panel at the University of Hawaii making that case, so I think we are in the right range here, anyway, Mr. Chairman.

Mr. BROWN of California. Mr. Chairman, I am pleased to yield 7 minutes to the distinguished gentlemen from Missouri [Mr. VOLKMER].

(Mr. VOLKMER asked and was given permission to revise and extend his remarks.)

□ 1445

Mr. VOLKMER. Mr. Chairman, I wish to thank the gentleman for yielding me this time. I wish to use this time to engage in a colloquy.

Recently, there has been a lot of talk in this body about the appropriate Federal role in funding technology development, much of it coming from the other side of the aisle as an attack on what is called corporate welfare. This criticism is generally directed at programs that were started in the Reagan and Bush administrations, but which have been greatly expanded in this administration as a useful way to develop good, high-technology jobs in the future. I am talking here about programs like the Advanced Technology Program at the Department of Commerce and the Technology Reinvestment Program at the Department of Defense.

The Hydrogen Future Act is the first bill we have considered this year that would expand industry-Government partnerships in technology development. On its face, this bill seems to be aimed at promoting programs which are very similar to ATP or TRP.

I would like to inquire of the gentleman from Tennessee [Mr. TANNER],

the ranking member of the Subcommittee on Technology of the Committee on Science, whether that is his understanding.

Mr. TANNER. If the gentleman will yield, I thank the gentleman from Missouri [Mr. VOLKMER].

It is my understanding, the purpose of the bill before us is to fund research, development, and demonstrations in a particular technology that the bill's authors have chosen; namely, hydrogen. This work will be done primarily through government-industry partnerships, with industry supplying a substantial share of the funding. This is the same general formula used by ATP and TRP, except that their focus tends to be much broader; that is, ATP is applicable to many different technologies besides hydrogen.

I would also like to add that the bill before us authorizes \$31 million above the recommendation of the Hydrogen Advisory Panel. Although I support government-industry partnerships promoted by this bill at its recommended funding level, currently supported industry programs will be cut to pay for this inflated hydrogen program. Meaningful, constructive research at various labs around the country such as the Oak Ridge National Laboratory, Argonne National Laboratory, Los Alamos, and Lawrence Livermore will certainly have to pay the price.

Mr. VOLKMER. I notice that the report on the hydrogen bill contains six criteria that the committee leadership endorses for prioritizing Federal R&D funding. Would it be useful to measure both the hydrogen program and the ATP against these same criteria?

Mr. TANNER. If my colleague would continue to yield, I believe that it certainly would.

First let's look at the hydrogen program. It appears that the hydrogen program authorized by this bill generally meets these criteria, although there are some close calls. For instance, the bill as introduced authordifferent demonstration 15 projects, including a hydrogen jet engine and economically feasible hydrogen vehicles. The bill before us today would still allow any of these demonstration projects to be funded. However, while the economics of these demonstrations may be questionable, the basic technology no longer seems novel. Therefore, this bill may in fact violate the committee's criterion related to technical feasibility.

On the other hand, if the hydrogen vehicles developed under this bill were to utilize novel, renewable energy technologies, then we would certainly conclude that the program is within the scope of these criteria for discovery.

Mr. VOLKMER. I agree with the gentleman that the hydrogen program authorized by this bill is a useful R&D program, but it is questionable whether all of these hydrogen activities are revolutionary or pioneering or that in fact they are not evolutionary advances or incremental improvements.

For instance, I would note that the program currently has a cost-shared, noncompetitive contract with Air Products and Chemicals Corp. to increase the thermal efficiency of hydrogen production from hydrocarbons from 85 to 93 percent, an incremental 8-percent increase. This is useful, but it certainly could be considered incremental. It is not revolutionary, it is not pioneering, and, therefore, in my opinion would violate one of the committee's six criteria.

I would ask the gentleman, if the hydrogen program authorized by this bill barely meets the six committee criteria, how then would you rate ATP against these same criteria?

Mr. TANNER. I say to the gentleman from Missouri [Mr. VOLKMER], I believe ATP as currently structured easily meets the criteria. I have here an example from ATP's proposal preparation kit explaining what ATP does not fund.

They do not fund precommercial scale demonstration projects where the emphasis is on demonstration that some technology works on a large scale rather than on R&D.

They do not fund improvements of existing products.

They do not fund product development

In short, ATP does fund the kind of long-term research and development which the committee report advocates.

Mr. VOLKMER. I totally agree. From my experience, ATP awardees tend to be real entrepreneurs. Most have been rejected by venture capitalists who are less entrepreneurial than they are.

Mr. TANNER. That is true. High-technology entrepreneurs have told us many times in hearings that ATP is the only U.S. program that is willing and able to meet their needs. Without ATP, they would have had to go overseas where foreign governments have established technology development climates that are more focused on future wealth than short-term profits.

Mr. VOLKMER. Am I missing something, then? Why do you think that some people have a philosophical problem with the ATP program but not with the hydrogen program?

Mr. TANNER. This is the very same question the entrepreneurs who testified before our committee raised. They have expressed dismay at this apparent inconsistency.

It seems to me that if you are for this hydrogen program and its approach, which I support at the recommended level, one would automatically embrace the ATP program enthusiastically. These programs are good for our country, they are good for our technological base, and they have proven their worth in the private sector. I hope that the Members will bear that in mind today as we vote and review and vote on the programs like ATP and TRP later this session.

Mr. VOLKMER. I wish to thank the gentleman for participating in the colloquy.

Mr. Chairman, I would like to pursue one other area that I briefly alluded to in the colloquy. That is, under the present program, the hydrogen program, a major billion-dollar corporation, multi-billion-dollar corporation has the largest grant for hydrogen under the energy program, and it is for only an incremental approval of producing hydrogen from hydrocarbons, to move it from 85-percent efficiency to a 93-percent efficiency.

Where is that corporation located? My understanding, from an article in the science magazine that I have, it is located in Allentown, PA, and that some of its facilities are in Pennsylvania and in other places. It is my understanding also it is the largest hydrogen producer in the whole United States, if not in the world.

Yet through its task force established to get more additional funds for hydrogen research, it comes here today to increase the amount that we give for hydrogen research so that they, this big company, billion-dollar company, can get additional up to \$40 million for further research, not into pioneering research, not into something brand new, but just for developmental research.

At one time this bill, the original version of this bill, was even to give them money to come up with a better hydrogen-propelled motor vehicle. We have had hydrogen-propelled motor vehicles for a long period of time. That is nothing new at all. Why would we want to give millions of dollars more to a billion-dollar company? Mr. Chairman, I call that corporate welfare. I believe that any company that is this big can afford to do their own research.

Mr. WALKER. Mr. Chairman, I yield myself 1 minute.

I would simply say that the colloquy that we just heard is the old order reasserting itself. It is interesting to note that the gentleman ignored the fact that this bill does concentrate on basic research and one of the complaints that he has is because the previous bill did not concentrate on basic research; this one does.

With regard to the corporation in Pennsylvania, I am surprised that the gentleman from Missouri feels so badly about the district of his Democratic colleague, the gentleman from Pennsylvania [Mr. McHALE], getting a benefit out of programs that have previously been done. The fact is that the money in Allentown, PA, goes to the district of the gentleman from Pennsylvania, who I think would probably disagree with the gentleman and would be in favor of this particular bill.

Mr. Chairman, İ yield 2 minutes to the gentleman from Minnesota [Mr. GUTKNECHT].

Mr. GUTKNECHT. Mr. Chairman, I rise in support of H.R. 655. As a new member of the Committee on Science, it has been interesting to listen to some of this debate today, but I must say that I have become more and more

enthusiastic about the long-term potential of hydrogen as a fuel.

It has been said that what the mind of man can conceive and believe, it can achieve. I am convinced that long-term hydrogen power will happen, but I think it will happen faster if we give it this kind of a boost.

The numbers that we are talking about in terms of the appropriation are relatively modest. As the chairman of the committee just alluded to, we focus on basic research rather than applied research. I have also come to the conclusion now, as a new member of this committee, that basic research is an important function of the Federal Government.

In fact, a few years ago I had the opportunity to meet the gentleman from the 3M Company who developed the Post-It note. He said something I thought very important and very interesting. He said, "If we knew what we were doing, it wouldn't be research."

There is a lot of research that goes on in this country that can be funded in the private sector. On the other hand, there is a lot that cannot and would not happen if we did not give it some kind of a boost at the Federal level.

I have said, too, to some of my colleagues that a number of years ago we had a U.S. Senator from Wisconsin by the name of Proxmire. He was fond of giving out these Golden Fleece Awards. I think sometimes he probably did more harm than good with those Golden Fleece Awards, because many times he focused on basic research programs that the Federal Government was underwriting.

I would remind him and my colleagues that some of the research that is done is very hard to justify at that particular point in time. I do not think that this one of those programs. I think this is one that will be easy to justify, and I think that our children, our grandchildren, and future generations of Americans will be happy and glad that we were willing to make some sacrifice to see that this program was funded in 1995.

I support the bill; I think it is as strong as it needs to be; I do not think we need any amendments; and I hope we can send it to the Senate and ultimately perhaps to conference with the version that we have in front of us today.

Mr. BROWN of California. Mr. Chairman, I yield 1 additional minute to the gentleman from Missouri [Mr. VOLK-MER].

Mr. VOLKMER. Mr. Chairman, in reply to the words of the gentleman from Pennsylvania, it makes no difference to this gentleman where Air Products is located. It does make a difference to me that a corporation, a billion, billion, billion-dollar corporation; is coming to Washington and wanting a handout in order to help do some research that they have got fully enough money to do themselves.

It makes no difference to me where that corporation is located. It does make a difference to me that it is corporate welfare, and I do not believe in corporate welfare.

Mr. WALKER. Mr. Chairman, I yield myself 2 minutes.

I congratulate the gentleman from Missouri for his position on corporate welfare. I would simply point out to the gentleman again that it was he who suggested there was something sinister in the fact that this particular corporation was in Pennsylvania.

He was the one who raised that point, and I got the implication that it might have been directed at the fact that the gentleman from Pennsylvania is from Pennsylvania. The gentleman raised that point in the classic cheap-shot technique. In my view, he was in fact raising the geographic issue.

□ 1500

It is also worth pointing out, I think, that in the particular case of the project that the gentleman talked about, I in fact wrote the Department of Energy myself questioning the grant of that contract that I do not believe was done on a competitive basis, and so therefore I have raised questions myself about that particular contract.

It is also worth noting to the gentleman that the actual research is being done in Texas under that program. Only the engineering is being done in Pennsylvania. The actual research work is being done in the district of another Democrat, the gentleman from Texas [Mr. Bentsen]. So the gentleman was the one who raised the point.

Mr. VOLKMER. Mr. Chairman, will the gentleman yield?

Mr. WALKER. I yield to the gentleman from Missouri.

Mr. VOLKMER. Mr. Chairman, I do not care where the research——

Mr. WALKER. Why did the gentleman mention Pennsylvania?

Mr. VOLKMER. I just made mention of it because the article that I read in the science magazine said that Air Products and Chemical Corporation is from Pennsylvania, Allentown, PA, is what it said.

Mr. WALKER. That is right.

Mr. VOLKMER. That is all I mentioned and I know it.

Mr. WALKER. The gentleman indicated, I reclaim my time, and the gentleman indicated that that might have some bearing on the fact that the legislation is on the floor.

And I am just saying that the gentleman is absolutely wrong, and he is even wrong with regard to his facts as to where the money is being spent. So I think that what we ought to do is talk about the substance of the bill. It is too bad the gentleman did not want to talk about the substance of the bill. The substance of the bill is that this is a hydrogen promotion program. It is in fact an attempt to make certain we have a good hydrogen program, and there may be lots of companies around

the country that will benefit from that.

But this is a basic science program,

something the gentleman seems to ignore. This is about basic research; it is not about corporate welfare.

Mr. WALKER, Mr. Chairman, Lyield.

Mr. WALKER. Mr. Chairman, I yield 2 minutes to the gentleman from South Carolina [Mr. GRAHAM].

Mr. GRAHAM. Mr. Chairman, I picked a good time to come, did I not? I will try to get us out of this ditch here.

I was on the Science Committee reluctantly, it is not one of my choices, but I am glad I am on it. I have really enjoyed it. The spirited debate here today has been fun.

But hydrogen research is something I knew zero about when I came to Congress. I am excited about it too. And I understand the concerns of the gentleman from California about the cap and present funding, but we have to make some suggestions that are good for the country.

And I am also against corporate welfare. There are some programs when analyzed over time I do not think have too good a report card grade about how we sent money to corporate America to develop energy sources of the future, but I think by capping the money we are making priority decisions, and that is what we need to do in the budget. We are putting \$100 million over 3 years on hydrogen research, which means something else has to go. That is a political decision we have made up here, a bipartisan political decision that hydrogen is important.

In about 18 months we are going to get a report card back and we will be graded about our judgment. I am willing to stand up here today and I say it is a good expenditure of the money, a good priority too, and overall I think it will help our country.

One thing we cannot forget is we built airplanes and we built cars without any Government grants. Let us not get too far away from the idea in America that our best resource of the future is entrepreneurs in the private sector, but the Government does play a role. It should be a partner, but should not be the dominant partner.

This is not about corporate welfare in my opinion. But in 18 months we will see the success of this program. I am optimistic, but if we are wrong, I will be the first one to say we were wrong and we made a mistake. But given the knowledge I have now, I think it is a good bill and I think we should press forward.

Mr. BROWN of California. Mr. Chairman, I yield 3 minutes to the distinguished gentleman from Massachusetts [Mr. OLVER].

Mr. OLVER. Mr. Chairman, I thank the gentleman for yielding me this time. I would say to the gentleman from South Carolina that it may be beneficial not to know anything about hydrogen research to be a part of this debate here today. Mr. Chairman, I rise in general support of H.R. 655. As a scientist I support hydrogen research, and one of the last research programs I worked on in my academic career was in fact a hydrogen fuel cell research program, and it was one of the most promising ways to utilize hydrogen as a fuel.

The distinguished chairman of the committee claims that the Hydrogen Technical Advisory Panel has recommended more spending than is even included in H.R. 655, and indeed the distinguished chairman is correct if we include the demonstration projects that the HTAP believers should be done, but the distinguished chairman has opposed the inclusion of those demonstration projects and in fact they are not included in the legislation.

Under those circumstances, I wonder why we would be offering funding or defending funding as high as would include those demonstration projects. As an aside, I would say I believe we ought to be authorizing demonstration projects as proposed by the HTAP, but they are not included in the legislation and we should not be authorizing funding for them.

So a little bit later I am going to offer an amendment that would provide for exactly the amount of funding in this bill that would provide for the research and development that the HTAP calls for, that HTAP is essentially a peer review panel for the whole program. Peer review panels are something that the chairman very strongly supports, as I support also. But I would strip out of it in the amendment I will offer later funding which goes beyond what is authorized in the bill and what is recommended by the HTAP panel and its recommendations, and I will offer that amendment at a later time.

Mr. WALKER. Mr. Chairman, I yield myself 1 minute.

Mr. Chairman, I think the gentleman is sincere in what he said, but I have a letter here from the chairman of HTAP, the Hydrogen Technical Assistance Panel, Pat Takabashi, and he simply says there was an error made that the gentleman is now going to evidently try to compound. It says:

I can see why there was an erroneous interpretation that HTAP was advocating a figure lower than the \$25 million, \$35 million, and \$40 million sums indicated in 104-95. We should keep in mind that Year Zero's \$7 million represented fiscal '94. Year One was a reflection of what we thought fiscal '95 (current year of expenditure) would be, and Year Two the first year of your bill. Thus, your \$25 million is actually lower than the \$28 million advocated in the HTAP report.

So, in fact, the chairman of the Hydrogen Technical Advisory Panel is saying that the figures used in our bill are actually lower than what their request is, and I think that should be a part of the debate as we move forward.

Mr. Chairman, I reserve the balance of my time.

Mr. BROWN of California. Mr. Chairman, I yield myself the remaining 2 minutes.

Mr. Chairman, I regret that some of this debate has appeared to wander a little bit afield from the essence of the bill before us. I think we have pretty much concurred that the continued support of hydrogen research is a good thing to do, and that the bill will do it. There is some question about the exact level, which coincides with the recommendation of the advisory committee, but in the overall scheme of things that is not all that important.

In my opinion, the primary objection to the bill has to do with the extraneous matter of the cap on the energy supply research and development in general, and as I indicated in earlier debate, even that point may be moot because it will depend on whether additional changes are made through the budget process that would reduce the budget of the Department of Energy in that and other categories.

So let me just conclude by saying what we have here is an essentially good bill which I intend to support which is complicated by a few extraneous matters which have been attached by the gentleman from Pennsylvania [Mr. WALKER] in pursuit of his desire to constrain spending, which I think most of us would agree has merit, but I differ rather strongly with the methodology which he is using in order to achieve that end.

Mr. BOEHLERT. Mr. Chairman, I rise in strong support of the Hydrogen Future Act. Hydrogen research has long had broad, bipartisan support, and with good reason: Hydrogen has the potential to be a cheap, clean, and efficient fuel.

As one of the strongest environmentalists in this Congress, I believe we need to do everything possible to develop such resources. Regulation and improvements in internal combustion technology can only get us so far. Our greatest hope for a future of economic prosperity and environmental health is to develop new propulsion technologies, such as hydrogen.

This bill will bring government, universities, and industry together to conduct research on hydrogen in a way that would not happen without government involvement. And the bill ensures that the Government would be active only in research that would not occur absent its assistance. That is a sensible R&D policy directed at an important end.

Hydrogen research has not been a source of controversy in the past. And there is no technical reason that it should be controversial now. I urge all my colleagues to support this work to develop an environmentally benign fuel.

Mr. BROWN of California. Mr. Chairman, I yield back the balance of my

time.
Mr. WALKER. Mr. Chairman, I yield back the balance of my time.

The CHAIRMAN. All time for general debate has expired.

The committee amendment in the nature of a substitute now printed in the bill shall be considered under the 5-minute rule by sections, and pursuant to the rule, each section shall be considered as read

The Clerk will designate section 1.
The text of section 1 is as follows:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Hydrogen Future Act of 1995".

The CHAIRMAN. Are there any amendments to section 1?

Mr. WALKER. Mr. Chairman, I ask unanimous consent that the remainder of the committee amendment in the nature of a substitute be printed in the RECORD and open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

The text of the remainder of the committee amendment in the nature of a substitute is as follows:

SEC. 2. FINDINGS.

The Congress finds that—

(1) fossil fuels, the main energy source of the present, have provided this country with tremendous supply but are limited and polluting;

(2) additional basic research and development are needed to encourage private sector investment in development of new and better energy sources and enabling technologies;

(3) hydrogen holds tremendous promise as a fuel, because it can be extracted from water and can be burned much more cleanly than conventional fuels;

(4) hydrogen production efficiency is a major technical barrier to society collectively benefiting from one of the great energy sources of the future;

(5) an aggressive, results-oriented, multiyear research initiative on efficient hydrogen fuel production and use should continue; and

(6) the current Federal effort to develop hydrogen as a fuel is inadequate.

SEC. 3. PURPOSES.

The purposes of this Act are—

(1) to provide for a basic research, development, and demonstration program leading to the production, storage, transport, and use of hydrogen for industrial, residential, transportation, and utility applications; and

(2) to provide for advice from academia and the private sector in the implementation of the Department of Energy hydrogen research, development, and demonstration program to ensure that economic benefits of the program accrue to the United States.

SEC. 4. DEFINITIONS.

For purposes of this Act—

(1) the term "demonstration" means a validation of the technical feasibility of a theory or process;

(2) the term "Department" means the Department of Energy; and

(3) the term "Secretary" means the Secretary of Energy.

SEC. 5. RESEARCH AND DEVELOPMENT.

(A) AUTHORIZED ACTIVITIES.—Pursuant to this section, the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 and the Energy Policy Act of 1992, and in accordance with the purposes of this Act, the Secretary shall provide for a hydrogen energy research, development, and demonstration program relating to production, storage, transportation, and use of hydrogen, with the goal of enabling the private sector to demonstrate the technical feasibility of using hydrogen for industrial, residential, transportation, and utility applications. In establishing priorities for Federal funding under this section, the Secretary shall survey private sector hydrogen activities and take steps to ensure that activities under this section do not displace or compete with

the privately funded hydrogen activities of United States industry.

- (b) SCHEDULE.-Within 180 days after the date of the enactment of the later of this Act or an Act providing appropriations for programs authorized by this Act, the Secretary shall solicit proposals for all interested parties (including the Department's labora-tories) for carrying out the research, development, and demonstration activities authorized under this section. Within 180 days after such solicitation, if the Secretary identifies proposals worthy of Federal assistance, financial assistance shall be awarded under this section competitively, using peer review of proposals with appropriate protection of proprietary information. The Secretary shall use appropriations authorized by this Act that are not allocated for such awards to carry out research, development, and demonstration activities in accordance with the purposes of this Act.
- (c) COST SHARING.—(1) Except as otherwise provided in section 6, for research and development proposals funded under this Act, the Secretary shall require a commitment from non-Federal sources of at least 20 percent of the cost of the proposed program. The Secretary may reduce or eliminate the non-Federal requirement under this paragraph if the Secretary determines that the research and development is of such a purely basic or fundamental nature that a non-Federal commitment is not obtainable.
- (2) The Secretary shall require at least 50 percent of the costs directly and specifically related to any demonstration project under this Act to be provided from non-Federal sources. The Secretary may reduce the non-Federal requirement under this paragraph if the Secretary determines that the reduction is unnecessary and appropriate considering the technological risks involved in the project and is necessary to serve the purposes and goals of this Act.
- (3) In calculating the amount of the non-Federal commitment under paragraph (1) or (2), the Secretary shall include cash, and the fair market value of personnel, services, equipment, and other resources.

(d) CERTIFICATIONS.—Before financial assistance is provided under this section or the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990—

- (1) the Secretary must certify that providing such financial assistance is consistent with the Agreement on Subsidies and Countervailing Measures described in section 771(8) of the Tariff Act of 1930 (19 U.S.C. 1677(8)); and
- (2) industry participants must certify that they have made reasonable efforts to obtain non-Federal funding for the entire cost of the project, and that such non-Federal funding could not be reasonably obtained.
- (e) DUPLICATION OF PROGRAMS.—The Secretary shall not carry out any activities under this section that unnecessarily duplicate activities carried out elsewhere by the Federal Government or the private sector.

SEC. 6. HIGHLY INNOVATIVE TECHNOLOGIES.

Of the amounts made available for carrying out section 5, up to 5 percent shall be used to support research on highly innovative energy technologies. Such amounts shall not be subject to the cost sharing requirements in section 5(c).

SEC. 7. TECHNOLOGY TRANSFER.

The Secretary shall foster the exchange of generic, nonproprietary information and technology, developed pursuant to section 5, among industry, academia, and the Federal Government. The Secretary shall ensure that economic benefits of such exchange of information and technology will accrue to the United States economy.

SEC. 8. REPORTS TO CONGRESS.

Within 18 months after the date of the enactment of this Act, and annually thereafter, the Secretary shall transmit to the Congress a detailed report on the status and progress of the Department's hydrogen research and development program. Such report shall include an analysis of the effectiveness of such program, to be prepared and submitted by the Hydrogen Technical Advisory Panel established under section 108 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990. Such Panel shall also make recommendations for improvements to such program if needed, including recommendations for additional legislation.

SEC. 9. COORDINATION AND CONSULTATION.

- (a) COORDINATION WITH OTHER FEDERAL AGENCIES.—The Secretary shall coordinate all hydrogen research and development activities within the Department, and with the activities of other Federal agencies involved in similar research and development, including the Department of Defense, the Department of Transportation, and the National Aeronautics and Space Administration. Further, the Secretary shall pursue opportunities for cooperation with such Federal entities.
- (b) CONSULTATION.—The Secretary shall consult with the Hydrogen Technical Advisory Panel established under section 108 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 as necessary in carrying out this Act.

SEC. 10. AUTHORIZATION OF APPROPRIATIONS.

- (a) General Authorization.—There are authorized to be appropriated, to carry out the purposes of this Act
 - (1) \$25,000,000 for fiscal year 1996;
- (2) \$35,000,000 for fiscal year 1997; and
- (3) \$40,000,000 for fiscal year 1998.
- (b) RELATED AUTHORIZATIONS.—(1) For each of the fiscal years 1996, 1997, and 1998, the total amount which may be obligated for Energy Supply Research and Development Activities shall not exceed the total amount obligated for such activities in fiscal year 1995.
- (2) Paragraph (1) of this subsection does not authorize the appropriation of any Federal funds

AMENDMENT OFFERED BY MR. BROWN OF ${\sf CALIFORNIA}$

Mr. BROWN of California. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Brown of California: Page 4, lines 14 and 15, strike "(including the Department's laboratories)".

Page 4, line 17, insert "The Secretary may consider a proposal from a contractor who manages and operates a Department facility under contract with the Department, and the contractor may perform the work at that facility or any other facility." after "authorized under this section.".

Mr. BROWN of California. Mr. Chairman, this is essentially a technical amendment which I think the chairman of the committee has agreed to. It clarifies the question of whether a Department of Energy laboratory may compete for an award under this bill, and as I understand it this is in accordance with the gentleman's feelings about the bill.

Mr. WALKER. Mr. Chairman, will the gentleman yield?

Mr. BROWN of California. I yield to the gentleman from Pennsylvania.

Mr. WALKER. Mr. Chairman, I agree with the gentleman on this. The staffs

did work together closely with the Department of Energy on these changes. I thank the staffs for that. I think it is a good amendment. The change will clarify the intent of the bill as to the language concerning the involvement of the Department of Energy laboratories with the hydrogen program.

The intent of the bill was to allow the laboratories to participate in Department programs, and this change reflects this intent. I would ask our colleagues to support the amendment.

The CHAIRMAN. The question is on the amendment offered by the gentleman from California [Mr. Brown].

The amendment was agreed to.

AMENDMENT OFFERED BY MR. TRAFICANT

 $\mbox{Mr. TRAFICANT.}$ Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by TRAFICANT: Page 7, line 8, insert ", with particular emphasis on activities carried out pursuant to section 7 of this Act" after "research and development program".

Mr. TRAFICANT. Mr. Chairman, during the amendment process and markup I was able to include language which says the Secretary shall ensure that economic benefits of such exchange of information and technology accrue to the U.S. economy.

My amendment simply says when we get a report back, as this bill requires, that it would give some emphasis to in fact if that accrual of benefit to the U.S. economy has occurred, and give us some information in that regard.

Mr. WALKER. Mr. Chairman, will the gentleman yield?

Mr. TRAFICANT. I yield to the gentleman from Pennsylvania.

Mr. WALKER. Mr. Chairman, I am delighted to support the gentleman's amendment, and would urge other Members to do the same.

Mr. BROWN of California. Mr. Chairman, will the gentleman yield?

Mr. TRAFICANT. I yield to the gentleman from California, the distinguished ranking member.

Mr. BROWN of California. Mr. Chairman, I thank the gentleman for yielding. We agree with the gentleman with regard to the need for this amendment, and have no objection.

Mr. TRAFIČANT. Mr. Chairman, I ask for a vote in the affirmative.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Ohio [Mr. TRAFICANT].

The amendment was agreed to.

AMENDMENT OFFERED BY MR. WALKER

Mr. WALKER. Mr. Chairman, I offer an amendment

The Clerk read as follows:

Amendment offered by Mr. WALKER: Page 4, line 1, insert "basic" after "hydrogen energy".

Page 5, line 2, strike "and development".

Page 5, line 4, strike ''20'' and insert in lieu thereof ''25''.

Page 5, lines 7 and 8, strike "and development".

Page 5, line 11, insert "development or" after "related to any".

Page 5, line lines 13 through 21, strike "The Secretary may" and all that follows through "and other resources.".

Page 5, line 22, insert "AND REQUIREMENTS" after "CERTIFICATIONS".

Page 6, line 1, strike "certify" and insert in lieu thereof "ensure".

Page 6, lines 3 through 5, strike "described in section 771(8) of the Tariff Act of 1930 (19 U.S.C. 1677(8))" and insert in lieu thereof "as approved in section 101 of the Uruguay Round Agreements Act (19 U.S.C. 3511)".

Page 6, line 17, insert "basic" after "used to support".

Mr. WALKER (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the RECORD.

The CHAİRMAN. Is there objection to the request of the gentleman from Pennsylvania?

There was no objection.

Mr. WALKER. Mr. Chairman, this is an amendment that will clarify the intent of the bill by conforming the bill language to the GATT language adopted in the Uruguay round.

The two main changes made in language reflect raising the 20-percent cost-share for research programs to a 25-percent cost-share as required by GATT, and changing the referenced GATT citation to the Uruguay round itself.

This language regarding Federal funding of research became effective January 1 of this year.

Staff has worked with the Department of Energy on the intent of this amendment.

I would ask my colleagues to support it.

Mr. BROWN of California. Mr. Chairman, I rise in opposition to the amendment.

(Mr. BROWN of California asked as was given permission to revise and extend his remarks.)

Mr. BROWN of California. Mr. Chairman, because this legislation provides for cooperative funding of research and development with private industry, it falls within the purview of certain GATT provisions which deal with this.

□ 1515

And Mr. WALKER's amendment seeks to resolve the issue of whether or not this comports with GATT by the language which he has offered.

It is our view that in doing so he has created additional problems which need to be resolved that are going to be extremely difficult to resolve because of the fact that it is not clear exactly what the definition of some of the terms being used within the bill and within his amendment is. This situation is an interesting one, because it is the first time that we have had to attempt to reconcile legislation involving what might be considered legislation involving what might be considered U.S. Government subsidies to industry, and it is important that we do it in a proper way.

I had originally intended to offer some language which I thought would resolve this more effectively, but I have decided merely in this statement to try and clarify the situation and to express my hope that as we go forward that we can have further consultative process with the administration and that perhaps when the bill gets to the other body, as I hope that it will, we can resolve this issue of the proper language to accommodate the bill to the GATT provisions in a fashion which is satisfactory to the administration, to the Department of Energy and hopefully to those people who are trying to interpret GATT.

At this point, I am going to content myself with expressing my feeling that the amendment offered by the gentleman from Pennsylvania [Mr. WALKER] does not resolve the problem and, hence, I am going to oppose it, but I will not ask for a rollcall vote.

Mr. Chairman, I rise in opposition to the amendment.

The gentleman from Pennsylvania's amendment is intended to try to fix a problem in the bill that arises from new language in the GATT Agreement which we approved in the last Congress. The new GATT rules fix an upper limit on the amount of Government subsidies that can be given to certain kinds of industry-related research, development, and demonstration efforts.

Unfortunately, GATT's definitions of the key terms do not mesh with the terms "research, development, and demonstration" terms which we traditionally use, not only in this particular bill, but throughout the wide range of Government R&D programs. This bill marks the first time Congress has had to grapple with these difficult definitional problems. Unfortunately, this problem was only recently called to our attention, and we have not had much time to consider careful solutions.

The amendment offered by the gentleman from Pennsylvania attempts to force a rough solution to this delicate problem. To achieve superficial compliance with GATT, the amendment would treat all development activities under the bill as what GATT refers to as precompetitive development activities. It is certainly not clear to me that many of the activities which we would call development fall within the GATT term. Indeed, the GATT term seems much closer to the activities that we would traditionally call demonstration activities.

The net effect of this amendment would be to increase the private sector cost-share requirement for development activities, from the 20 percent set out in the bill as reported to 50 percent. In my view, the development stage of research is entirely too early to require such a large private sector cost share. At this point in the process, any potential commercialization of a product or process is entirely speculative. and the technical risks of failure are generally high. The result is that a high mandatory costshare will drive industry away from investing in hydrogen development, with the exact opposite result of what the sponsors of this bill hope: Less innovation, less private sector investment, and slower progress toward the development of hydrogen.

My preference would have been to adopt an amendment which simply requires the DOE to administer the cost-sharing requirements in accordance with GATT, and leave to the administration the untidy task of determining precisely what compliance requires for the par-

ticular programs at issue. After all, this issue will have to be addressed by the administration under numerous other research and development programs, and we typically leave to the administration the task of interpreting and carry out our international obligations.

If this amendment is adopted, I would urge the distinguished gentleman to consult with the administration on this point as the bill goes forward and see if some better solution could be developed.

For the reasons noted above, I oppose the amendment, and urge a "no" vote.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Pennsylvania [Mr. WALKER].

The amendment was agreed to.

The CHAIRMAN. Are there further amendments?

AMENDMENT OFFERED BY MR. OLVER

Mr. OLVER. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. OLVER: Page 8, line 9, strike "\$25,000,000" and insert in lieu thereof "\$16,000,000".

Page 8, line 10, strike ''\$35,000,000'' and insert in lieu thereof ''\$22,000,000''.

Page 8, line 11, strike "\$40,000,000" and insert in lieu thereof "\$26,000,000".

Mr. OLVER. Mr. Chairman, we obviously have some contention here about numbers, but I think I am correct on the Record.

Mr. Chairman, this is a simple amendment. It reduces the authorized levels of spending in H.R. 655 by a total of \$36 million over 3 years.

On March 1, 1995, the Hydrogen Technical Advisory Panel released its recommendations for the future of the hydrogen research program. The Hydrogen Technical Advisory Panel, or HTAP, is a panel of professionals from industry, universities, and government, specifically convened to provide expert advice to the Department of Energy on the development of hydrogen programs. This panel's work represents essentially peer review of the overall research program.

HTAP has adopted as its long-range goal that "hydrogen join electricity in the 21st century as a primary energy carrier in the Nation's sustainable energy future," and HTAP has laid out a 20-year budget plan to achieve that goal.

My amendment simply adopts the level of funding proposed in the advisory panel's recommendations for research and development activities. As an aside, I believe we ought to also authorize the demonstration projects as proposed by HTAP, but since the bill does not authorize such demonstration projects, it would make no sense to authorize funds for those demonstration projects. Therefore, my amendment would authorize the hydrogen research program at the levels that have been listed in the amendment. It does not cut hydrogen research funding. In fact, it doubles the authorization for hydrogen research compared with current spending. However, my amendment

does cut \$36 million from the authorization levels proposed in the bill, and it is achieved by limiting the funding increase to what the people involved in the program, the industry and outside academics alike, have said they need.

So you can vote to save \$36 million, and yet you can rest assured there is full funding for the research program as requested by the professional advisory panel, except, of course, for the demonstration projects which are not included in the authorization.

As a scientist, I support hydrogen research. In my academic career, I personally have done research on fuel cells, one of the most promising ways to utilize hydrogen as a fuel.

As a member of the Committee on the Budget, I do not see why anyone thinks we should spend more money than even proponents of the program think is needed.

The Members of this House have spent the last 100 days cutting spending. We have cut lunches. We have cut fuel assistance. We have cut safe drinking water moneys for our towns. We are going to spend the next 100 days cutting spending. We will cut the Department of Energy. We may even eliminate the Department of Energy.

So I challenge each Member then to figure out why we, on this first day back, are increasing spending on this program by at least 300 percent above the current program, and far above what the professionals in the field think is necessary.

Now, the gentleman from Pennsylvania, the distinguished chairman of the committee, will say that the budget cap in the bill will prevent increases in the hydrogen program from increasing Federal overall spending, but if the spending is unjustified, none of us should be mollified that it is offset by cuts to other programs.

Let us restore a measure of reasonableness to this program to adopt the advisory panel's recommendations and save \$36 million.

I would urge Members to vote yes on the amendment, and I would point out the letter that is being circulated in regard to this expenditure level includes the demonstration projects, the moneys that are listed which are, indeed, numbers above the numbers in the authorization in the legislation that that recommendation from the HTAP includes the demonstration projects which are not authorized and which the chairman has opposed.

I would urge the Members vote to reduce this authorization to what is included as authorized in the legislation and to what the HTAP panel has recommended in their 20-year budget for the development of the hydrogen research program.

Mr. WALKER. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, this particular amendment saves no money. There is no savings here. We are simply talking about how much money you are willing to put into a hydrogen research effort.

The whole intent behind this bill is to reprioritize hydrogen in the overall research scheme. Why is that necessary? Well, because hydrogen has had a very minor role. It is an energy source, an energy resource with a very, very great potential that has been virtually ignored by the Department of Energy.

Now, the gentleman tells us that he is doing this because of guidance from the Hydrogen Technology Assessment Panel. The fact is that the HTAP recommendations are higher than what is in the bill and very much higher than the amendment that the gentleman offers. Now, he says this relates to demonstration programs. I am not real hot on doing demonstration projects. The gentleman is absolutely right on that.

The fact is under amendments adopted in the committee, there are demonstration projects in the bill. Now, they have to be peer reviewed. They have to meet standards and so on. But the fact is the bill makes allowances for demonstration projects.

It is not one of the things I think is the greatest piece of the bill, but the fact is they are there.

But what the gentleman is really doing is he is cutting back on the prioritization of hydrogen. That is what his intent is. This is not saving any money because of the cap. It just simply is that he does not agree we ought to spend as much money prioritizing hydrogen. I think we ought to understand where he is going to put the money. He is going to put the money into solar R&D, which already gets \$400 million. He is going to put the money into fusion that already gets \$370 million. He is going to put the money into nuclear R&D that already gets \$300 million.

Now, when you are talking about a \$25 million hydrogen program, it is not even in the same league as these other programs, and yet what the gentleman is going to do is come out here and protect the old order, just keep everything in place that is now there, Keep spending money for things like fossil R&D and solar R&D, fusion R&D, nuclear R&D, and all of these kinds of things, all of the programs that have been prioritized over the past. The gentleman would say keep them in place, do not touch them, let us let the old order prevail. This is all fine and well.

We are actually attempting to do something that is a little different here. We are attempting to move away from the old structure of the past and build a program up that deserves a little bit of prioritization.

The gentleman does not want to move in that direction. I think that is sincere. He can be very sincere. If he is antihydrogen, he is antihydrogen. That is fine. Let us not suggest that what he is doing is in line with what the hydrogen program wants. The hydrogen program has said the figures they want is \$28 million in 1996, \$37 million in 1997, and in 1998 they want \$48 million.

This bill does not give them as much as they are requesting, but the fact is it is in an order of magnitude that is little bit more and does begin to reprioritize the program. That is what I am attempting to do.

But we ought not accept anything in the gentleman's argument that suggests that he saves a dime. He does not save a dime with his amendment. All he does is he says that we are going to spend more money for things like solar and fusion and nuclear instead of spending it on hydrogen.

I just happen to think that is the wrong set of priorities, and the gentleman's amendment in that regard is the wrong direction to go. We ought to reprioritize our research. Our research has gone badly in terms of prioritization in the past. We ought to begin to reprioritize.

Mr. OLVER. Mr. Chairman, will the gentleman yield?

Mr. WALKER. I yield to the gentleman from Massachusetts.

Mr. OLVER. Mr. Chairman, I thank the gentleman for yielding.

I never mind being called correctly for what I am doing, but I must say that the thought-for-word ratio there is very low in the gentleman's comment.

I am not antihydrogen. I have said quite plainly in the beginning that I am prohydrogen research. I am even a scientist who has done research on fuel cell technology and hydrogen-based fuel cells. I am for hydrogen research.

I am not, as the amendment is very clear, so let us be quite, quite specific about this, when the gentleman says that I am for more nuclear R&D and solar R&D and fusion R&D, and whatever other R&D's he is talking about, my amendment does nothing of the sort. All it does is reduce the amount in this particular authorization for the hydrogen research so that that comes from the essentially peer review panel, the HTAP panel which works on this.

The CHAIRMAN. The time of the gentleman from Pennsylvania [Mr. WALKER] has expired.

(By unanimous consent, Mr. WALKER was allowed to proceed for 2 additional minutes.)

Mr. WALKER. I continue to yield to the gentleman from Massachusetts.

Mr. OLVER. I would like to end this so the gentleman will have time to take part. I thank the gentleman for yielding.

Now, the gentleman says that there are demonstrations allowed in the legislation, but I would point out, and I am sure he agrees with this, that the demonstrations allowed in the legislation and authorized by the legislation are limited to the validation of the technical feasibility of theory or process and the demonstrations which are part of HTAP's program of their development of hydrogen as a fuel, the demonstrations are utility demonstrations, transportation demonstration, remote

transportation production demonstration, clearly not related to the validation of the technical feasibility of theory or process.

And so the demonstrations that are included in their budget, in the HTAPproposed budget are not authorized by the legislation, and we should not be authorizing money for the bill.

Mr. WALKER. I thank the gentleman for his opinion. The fact is we are trying to reprioritize some of the things going on in the program as well. All the gentleman is doing is cutting back our ability to do that. The gentleman is not reducing moneys overall, here.

The only reason I am saying what he is doing is protecting other R&D programs such as nuclear R&D is because they are in the same account. If, in fact, what we are doing is capping the account and the gentleman simply wants to spend less for hydrogen, the fact is what he is doing is giving more money to these old order programs. The only comment I am making is the old order would continue to stand tall in the gentleman's amendment, and instead of getting some new solutions with some new ideas, moving toward a new resource, that the gentleman would cut back on our ability to do

In my view, he is offering an amendment that is well below that which the HTAP panel has suggested are the right numbers.

Now, whether HTAP wants to spend those in ways different, my point is that all of that ought to be peer reviewed, that we ought to have a way of figuring out whether or not there is good science involved.

Reject the gentleman's amendment. The CHAIRMAN. The time of the gentleman from Massachusetts [Mr. OLVER] has expired.

(By unanimous consent, Mr. OLVER was allowed to proceed for 1 additional minute.)

Mr. OLVER. Mr. Chairman, I am not trying to expend more money on any of the other places.

We can make cuts in those, those places where it is appropriate to make cuts through the reprioritization of our expenditure programs which I think is what we are really trying to do, to reprioritize how the expenditures in the Department of Energy should go.

□ 1330

And the proposals here, even if correctly calculated, and taking out those demonstrations, which all the words aside, if demonstrations which are not of a nature that deal with the validation of the technical feasibility of the theory or process are not authorized in the legislation, then those demonstrations that the HTAP is suggesting ought to be done, which I think ought to be done actually; those are not possible to be done under the provisions of the legislation, and we should be authorizing money that is appropriately based upon the legislation that we are passing. I think we should be eliminating unnecessary spending wherever we can make that elimination.

Mr. BROWN of California. Mr. Chairman, does the gentleman from Massachusetts [Mr. OLVER] require any additional time?

Mr. Chairman, I will not prolong this unduly. I think that the gentleman from Massachusetts has propounded a reasonable amendment that would conform to our previous practice which is, in general, to try to authorize not higher than what has been suggested by the official technical advisor groups that are responsible for a particular program, or if it is a recommendation from the administration not higher than the administration has recommended. I am somewhat constrained in my enthusiasm for the amendment because I think I tend to agree with the gentleman from Pennsylvania [Mr. WALKER that this is a program which has been underfunded in the past, but the amendment offered by the gentleman from Massachusetts Mr. OLVER] in my opinion would comport with what I think is the view of most Members of the House, that we confined the increases in programs to those that can be justified on the basis of technical recommendations.

Now I understand the position of the gentleman from Pennsylvania [Mr. WALKER] is that his figures do comply with those technical recommendations. I am not wholly assured that they do, but he may be justified in that position.

On balance I would like to support the amendment of the gentleman from Massachusetts [Mr. OLVER] and ask for an "aye" vote.

The CHAIRMAN. The question is on the amendment offered by the genfrom Massachusetts tleman OLVER1.

The question was taken; and the Chairman announced that the noes appeared to have it.

RECORDED VOTE

Mr. OLVER. Mr. Chairman. I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 201, noes 214, not voting 19, as follows:

[Roll No. 306]

AYES-201

Clyburn Abercrombie Duncan Durbin Ackerman Coburn Edwards Andrews Coleman Barcia Collins (IL) Engel Barrett (WI) Collins (MI) Ensign Beilenson Condit Eshoo Bevill Convers Evans Bilbray Costello Farr Coyne Fazio Fields (LA) Bonio Cramer Borski Cunningham Filner Boucher Danner de la Garza Flake Foglietta Brewster Browder DeFazio Ford Frank (MA) Brown (CA) DeLauro Brown (FL) Dellums Frost Funderburk Brown (OH) Deutsch Dicks Dingell Bryant (TX) Furse Gejdenson Cardin Chapman Dixon Gephardt Doggett Geren Gibbons Clayton Clement Dooley

Gonzalez Gordon Greenwood Gutierrez Hall (OH) Hall (TX) Hamilton Harman Hastings (FL) Hayes Hefley Hefner Hinchey Hoyer Jackson-Lee Jacobs Jefferson Johnson (SD) Johnson, E. B Johnston Kaniorski Kennedy (MA) Kennedy (RI) Kennelly Kleczka Klug LaFalce Lantos Levin Lewis (GA) Lincoln Lipinski Lofgren Lowey Luther Maloney Manton Markey Martinez Mascara Matsui McCarthy McDermott

McHugh Sanford McKinney Sawyer McNulty Meehan Meek Metcalf Mfume Miller (CA) Mineta Minge Mink Montgomery Nadler Neal Nethercutt Oberstar Obey Olver Ortiz Orton Owens Packard Pallone Parker Pastor Payne (NJ) Payne (VA) Peterson (FL) Peterson (MN) Pomeroy Porter Poshard Rahall Ramstad Rangel Reed Reynolds Richardson Rivers Roemer Rose Roybal-Allard Rush Sabo Sanders

Scarborough Schroeder Schumer Scott Serrano Sisisky Skaggs Slaughter Smith (NJ) Spratt Stark Stenholm Stokes Studds Stupak Tanner Tauzin Taylor (MS) Tejeda Thornton Thurman Tiahrt Torres Torricelli Towns Traficant Tucker Velazquez Vento Visclosky Volkmer Walsh Ward Waters Watt (NC) Waxman Whitfield Williams Woolsey Wyden Wynn Yates Zimmer

NOES-214

Allard DeLay Archer Diaz-Balart Armey Dickey Doolittle Bachus Baker (CA) Dornan Baker (LA) Dovle Ballenger Dreier Barr Dunn Barrett (NE) Ehlers Ehrlich Barton Emerson English Bass Bateman Bentsen Ewing Bereuter Fawell Fields (TX) Berman Bilirakis Flanagan Bliley Foley Blute Forbes Boehlert Fowler Boehner Fox Bonilla Franks (CT) Bono Franks (NJ) Brownback Frelinghuysen Frisa Ganske Bryant (TN) Bunn Bunning Gekas Burr Gilchrest Burton Gillmor Buyer Gilman Callahan Goodlatte Goodling Calvert Camp Goss Canady Graham Castle Gunderson Chabot Gutknecht Chambliss Hancock Chenoweth Hansen Christensen Hastert Hastings (WA) Chrysler Clinger Hayworth Coble Heineman Collins (GA) Herger Combest Hilleary Cooley Hobson Hoekstra Crane Hoke Crapo Holden Cremeans Horn Cubin Hostettler Davis Houghton

Hunter

Cox

Deal

Hutchinson Hyde Inglis Johnson (CT) Johnson, Sam .Jones Kaptur Kasich Kelly King Kingston Knollenberg Kolbe LaHood Largent Latham LaTourette Laughlin Lazio Leach Lewis (CA) Lewis (KY) Lightfoot Linder Livingston LoBiondo Longley Lucas Manzullo Martini McCollum McCrery McDade McHale McInnis McIntosh McKeon Meyers Mica Miller (FL) Molinari Mollohan Moorhead Morella Murtha Myers Myrick

Neumann

Ney Nussle

Oxley Seastrand Thomas Thornberry Paxon Sensenbrenner Petri Shadegg Torkildsen Pickett Shaw Upton Vucanovich Shays Pombo Portman Waldholtz Shuster Skeen Skelton Pryce Quillen Walker Wamp Smith (MI) Watts (OK) Quinn . Radanovich Smith (TX) Smith (WA) Weldon (FL) Weldon (PA) Regula Riggs Solomon Weller Roberts Souder White Rohrabacher Wicker Spence Stearns Wolf Roth Young (AK) Roukema Stockman Young (FL) Royce Stump Salmon Talent Zeliff Schaefer Tate Taylor (NC) Schiff

NOT VOTING-19

Baesler Istook Ros-Lehtinen Baldacci Menendez Saxton Moakley Thompson Becerra Clay Moran Wilson Fattah Norwood Wise Gallegly Pelosi Rogers

□ 1552

The Clerk announced the following pair:

On this vote:

Mr. Moakley for, with Mr. Norwood against.

Messrs. ALLARD, EWING, GUNDER-SON, UPTON, BENTSEN, and SMITH of Michigan changed their vote from "ave" to "no."

Messrs. PACKARD, ZIMMER, SCHU-MER, TIAHRT, WAXMAN, and POR-TER changed their vote from "no" to "ave."

Šo the amendment was rejected.

The result of the vote was announced as above recorded.

The CHAIRMAN. Are there further amendments to the bill?

AMENDMENT OFFERED BY MR. BROWN OF CALIFORNIA

Mr. BROWN of California. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. Brown of California: Page 8, line 7, strike "(a) GENERAL AUTHORIZATION.—".

Page 8, lines 12 through 18, strike subsection (b).

(Mr. BROWN of California asked and was given permission to revise and extend his remarks.)

Mr. BROWN of California. Mr. Chairman, I am offering an amendment to strike the provisions in the bill which put a cap on the 1995 outlay level on the expenditures on energy supply research and development.

Now, let me explain this amendment. It is very simple. It just eliminates the cap language which occupies a few lines in the bill.

The gentleman from Pennsylvania, Mr. Walker, has asserted that the purpose of the cap language is to make sure that the bill itself is budget neutral, that it does not add to spending in the Department of Energy. The gentleman is being unduly modest in this respect. The cap language would appear at this particular time, and before the 1996 spending level has been determined, to cut the spending in this account by \$250 million, plus or minus a

little bit. This cutoff \$250 million is intended to offset the additional expenditures, which amount to some few tens of millions of dollars contained in this bill.

So the actual reductions in the Department of Energy spending not only cover the cost of the increases, the minor increases in this bill, which I support, but they overcompensate by probably 10 times the amount.

□ 1600

Now, if the purpose of the bill, of the cap was to offset the cost of the increases in hydrogen research spending, I would 100 percent support it. I want the bill to be budget neutral. But if it cuts 10 times as much as the bill spends, then I think it is a first step toward the dismantling of the research budget of the Department of Energy.

Now, that may well occur, but it is not appropriate to use this minor bill as a vehicle for determining future energy research expenditures for the next 3 years. That is appropriately the role of the Committee on the Budget, the role of the administration, the role of the Committee on Appropriations, but not the role of this particular bill. So I am objecting very strongly to this device.

Now, as I understand the gentleman from Pennsylvania [Mr. WALKER], he continues to assert that the purpose of the cap language is to make sure that this bill is budget neutral and that, if we can find other language that is better than the cap to do that, I gather that he would support it. I suggest that he look for that language in the Committee on the Budget, which he also serves on, and include it there, rather than in this bill.

I will not try and belabor this point, Mr. Chairman. You do not need to make \$250 million in cuts to support a bill that adds \$25 million to the cost of hydrogen research. What you will do, as a result of these cuts, is to force cuts in all of the other programs, which I am sure is what we will have to make eventually, but this is not the way to make them. We will force cuts which will have an impact on every laboratory of the Department of Energy, including Los Alamos and Livermore and Argonne and Savannah River and all of the others which are now in discussion, are now being discussed in terms of what our future policy should

The discussion has not ended; it has not been resolved. We do not have an answer. Yet here in this bill we are going to force that quarter of a billion dollars per year cut without any guidelines, without any knowledge of what the impact will be. I very much object to that process, not to the funding of this bill by offsets. As I have said, I would be glad to support a bill directed at that. But this is not the way to do it. I object very strongly, and I ask support for my amendment to remove the caps.

Mr. Chairman, the amendment that I am offering to section 10(b) of this bill would eliminate the authorization cap on Energy Supply Research and Development [R&D] activities conducted at the Department of Energy [DOE]. In offering this amendment I want to make it clear that I support hydrogen research and even feel that this research can be offset by reductions in other energy R&D programs. But the caps contained in H.R. 655 are arbitrary, have little to do with thoughtful energy policy, and are directed at a broader effort to cut DOE programs, beyond the amount needed to offset the cost of this bill. I feel strongly that until these issues are addressed, we cannot go forward with the caps as currently writ-

The major problem with this language is that it is a poorly disguised attempt to arbitrarily cut the DOE research budget. The accounts under the Energy Supply R&D heading total around \$3.3 billion dollars per year. The cap imposed by this bill cuts outlays in these programs by \$250 million in fiscal year 96 and an unknown amount in the next 2 fiscal years. But the program authorization for the hydrogen research, which is the supposed reason for this legislation, runs between \$25 and \$40 million per year over the next 3 years.

Thus, the caps cut much more than is envisioned being spent on the hydrogen research. The hydrogen research funding is the tail wagging the dog, and the dog is major program reductions across the board in Energy Supply R&D. If the goal of H.R. 655 is to cut DOE funding, let's do it in a broad authorization bill. If the goal of H.R. 655 is to offset the cost of the hydrogen research authorized in this bill, then lets find appropriate offsets and identify them. But let's not bring up a hydrogen research authorization that is really a trojan horse for other political goals, namely the first move toward the dismantlement of DOE.

Beyond these questions about the true motivation for imposing these caps, I also object to the rather arbitrary nature of the language in H.R. 655. There is no mention of any process by which the Appropriations Committees or the Secretary of Energy are to make decisions about which programs to cut. No priorities are established. No vision about our future energy supply mix is outlined. No reference is made to the existing omnibus energy policy document, the Energy Policy Act of 1992.

What the bill does is authorize a modest research program and then, almost as an aside, in the next-to-last paragraph of the bill, draw in the entire \$3.3 billion Energy Supply R&D program and cut \$250 million from it in the first year.

Where are these cuts to be made? Who knows? Under the heading of Energy Supply R&D are a wide range of programs all put at risk under this bill. Will the cuts come to the fusion program or the TPX at Princeton, NJ? Will the Environmental Restoration program be used as an offset, possibly forcing non-compliance issues at DOE facilities around the country? Will the fossil fuel research programs be cut, reducing oil and gas or coal research? Will we have to cut operating time at DOE user facilities, delaying industry research at these sites? Do the cuts hit the DOE labs at Argonne, Livermore, Albuquerque, Oak Ridge. and numerous other sites around the country? Unfortunately, no one on the floor today can

answer these questions. The truth of the matter is that we do not know what we are voting for in this bill.

When I was chair of the Science Committee, we tried to move a series of authorization bills to address these issues. We tried to set out relative priorities for funding and indicate the importance of various programs at DOE. We did not succeed, but at least we tried to do a comprehensive job of authorizing DOE programs.

Mr. Walker now faces that task and I pledge to help him work on a comprehensive DOE research authorization. In that bill, at that time, we need to discuss the broad goals and priorities of our Nation's energy R&D programs. In that bill, we can debate offsets, program reductions, and a host of other policy issues. Mr. Walker will, I believe, agree with me on the need for a comprehensive look at DOE's programs.

In fact, Mr. WALKER endorsed this approach last year in a similar debate on a similar proposal for an energy R&D cap. Last August, during floor debate on H.R. 4908, the Hydrogen, Fusion, and High Energy and Nuclear Physics Authorization Act, Mr. WALKER agreed that his preference was for a full authorization for the entire range of energy programs, rather than a simple cap. He is now in a position to propose a comprehensive authorization.

Where today is the debate on the proper funding level for nuclear energy R&D, or a discussion on the proper allocation of resources to the DOE labs, or the funding needs for environmental restoration? We are not having a debate on anything other than a small hydrogen research program vet we are affecting all of these other programs. If you are concerned about the DOE energy portfolio, if you have a DOE lab in your district, if you have interests in energy R&D, you will join me in striking the caps and asking Mr. WALKER for a chance to debate this important issue in the open, instead of seeing funding priorities for a \$3.3 billion program stuck at the tail end of the Hydrogen Future Act.

All I am asking for in this amendment is a chance to do what Mr. WALKER has said he wants to do. I feel that we should strike the authorization caps until we have a chance to debate all of the other programs touched by this language.

Vote for the Brown amendment. Vote for regular order.

Mr. BAKER of California. Mr. Chairman, I move to strike the last word, and I rise in opposition to the amendment.

Mr. Chairman, what funny roles we have as we change. Now the last debate was over whether we should cut the hydrogen fuels program. The gentleman from California [Mr. Brown] and I both support the hydrogen fuels program but he felt constrained to cut \$10 million a year. Now we are going to take the caps off. And go ahead, Katie bar the door, let us spend more on this and spend more on that, we will spend more on the nuclear programs, spend more on the hydrogen program, spend more on biomass and every other kind of research program for energy.

We want to set responsible levels. And this cap does that. The fact that we have increased slightly by around \$10 million a year the hydrogen fuels spending does not mean we have to take the cap off and allow this Government to continue to spend in excess year after year. Let us keep these responsible levels. Let us keep the cap and vote against this amendment.

Ms. LOFGREN. Mr. Chairman, I move to strike the requisite number of words. I rise as strong opponent of the arbitrary cap on research and in support of the amendment offered by the gentleman from California [Mr. Brown].

I believe that having spent now 3 weeks in Silicon Valley and listening to the CEOs of the most exciting and productive companies in our Nation that the key to our economic future is research and learning new things and cutting-edge endeavors. I believe that putting a cap on this research area will have an unfortunate and hopefully and quite possibly unintended consequence.

The amendment of the gentleman from Pennsylvania [Mr. WALKER] really picks one promising area of research out of all, and that is this hydrogen bill before us. I agree that hydrogen research is worthy of exploration and may, in fact, play a useful role in our country's future. But it is only one of a rich environment of research possibilities that include solar and even more excitingly fusion research. If we are going to put a cap on the amount of money that will be spent in this environment and then single out only one area of hydrogen for our research dollars, in effect what we are doing is saying here on the floor, without analysis in the appropriate committees, including Science on which I serve, that fusion research is not worth our time. that fusion research really is not going to receive the kind of support that I believe it needs if it is going to be the energy source for our country and, indeed, the world in the 21st century.

When I think about a world that could be supported by fusion, I think of a nation that would have limitless supplies of energy, that is clean, nonpolluting and readily available for all. I think to imagine that country and that world really puts in perspective the reason why we need to protect the fusion program. I find it disturbing that in a backdoor way this bill would really direct the scientific talent of our Nation only to one area, that would be hydrogen, to the detriment of even more exciting, long-term endeavors.

So I would strongly urge approval of the amendment of the gentleman from California and, frankly, should this amendment fail, I will be unable to support this bill because, in effect, it will be killing the fusion research program that I think really merits our attention more than anything else.

Mr. WALKER. Mr. Chairman, I move to strike the requisite number of words, and I rise in opposition to the amendment.

Mr. Chairman, a lot of us, when we went home, found a lot of our constituents were wondering how we got ourselves into this \$4.5 trillion debt mess

and why we have huge deficits. This amendment is really the reason why.

This amendment says it does not matter, the fact that we are trying to reprioritize. What we want to do is just spend more. Because if you take off the cap, as this amendment proposes to do, it simply is add-on spending, add-on spending over and above anything we are doing now.

The statement that was just made that somehow this is going to kill fusion research and all that sort of thing is just plain nonsense. We are talking here \$15 million worth in total. That is one-half of 1 percent of a \$3.3 billion account. All we are suggesting is that \$3.3 billion account ought to be capped at the 1995 spending level. We ought not spend anymore in order to reprioritize the hydrogen program within that account.

By doing that, what you assure is we have no add-on deficit. We have no add-on debt. And it seems to me that as a Congress right now we do not want to be approving programs that increase the deficit and increase the debt.

In fact, when we get a budget bill out here in the near future, we are going to be talking about trying to find ways to reduce the rate of increase of Government even further than we have done in the past.

So this particular bill is aimed at assuring that you just do not have anymore add-on deficit, add-on debt. If you vote for the Brown amendment, you are going to create add-on debt in this bill. In my view, that would be the wrong thing to do.

We want to reprioritize hydrogen within the programs that are presently there. We do not emasculate any program to do this. As I say, the total amount of spending, the increase in spending in this bill is less than one-half of 1 percent of the totality of the account.

So it seems to me we ought to do this

The gentleman from California [Mr. Brown] mentioned the fact that there may be other ways of getting at this. I asked the department to help us to do that. The department came up with no language. I asked members of the Committee on Science to help us do that. They came up with no language.

The only way anybody knows to make certain we do not spend more on the program is to cap it. And so that is what we have indeed done.

I think that this is the right approach to take. I would urge anybody who is talking about reducing deficits and reducing debt to vote against this amendment because otherwise what you are going to do is have a program here that potentially would be add-on spending. I do not think that that is the correct course for us to take in the present economic environment.

Mr. BROWN of California. Mr. Chairman, will the gentleman yield?

Mr. WALKER. I yield to the gentleman from California.

Mr. BROWN of California. Mr. Chairman, I would like the House to be aware of this discourse. I am not sure that I have a fundamental disagreement with the gentleman from Pennsylvania [Mr. WALKER], but the way in which he chooses to express his criticism of my amendment leaves me a little bit nonplussed, because he states that defeating this, by defeating this amendment will be simply add-on spending.

I want to ask the gentleman, if we could devise language which would offset the increased authorization for hydrogen by a similar amount in other fields so that there is a true offset and no increase in spending, is it the position of the gentleman that he would agree to this kind of language?

Mr. WALKER. Mr. Chairman, I have said that all the way along, that I thought that if we could find other ways of accomplishing this to assure that there is no add-on program here, that that would be perfectly acceptable to me. But your amendment goes right at the heart of the bill's language that seeks to put that kind of cap in.

By striking the cap, you are simply doing all of the additional spending in the bill as add-on to the present ac-

Mr. BROWN of California. Mr. Chairman, if the gentleman will continue to yield, it is not this gentleman's intention to deliberately add onto spending. I think that the semantic problem here is that you are saying that capping the Department of Energy's spending for this account at the current year's level, 1995, anything in excess of that is add-on spending, whereas the base line basically is the administration's projections for what the spending would be over the next several years.

I do not intend to go beyond the administration's projection, and if it is possible to cut those projections sufficiently to fund this program, I would agree to that.

In other words, I am objecting to the gentleman characterizing my proposal as add-on spending.

Now, would the gentleman agree with me also that based on our present knowledge of the President's budget for 1996 and anticipated 1997 and 1998, that his language constrains that by a quarter of a billion dollars?

The CHAIRMAN. The time of the gentleman from Pennsylvania [Mr. WALKER] has expired.

(By unanimous consent, Mr. WALKER was allowed to proceed for 2 additional minutes.)

Mr. BROWN of California. Mr. Chairman, if the gentleman will continue to yield, does the gentleman agree with me that his language not only prevents add-ons, it reduces the spending in this account for the Department of Energy by a quarter of a billion dollars below the department's base line?

Mr. WALKER. Below the projected increases, I would say to the gentleman. But I would also say to the gentleman that at the beginning of this

Congress, we developed a new rule in this Congress with regard to spending.

We said we were going to use the base line, all baselines, as the amount of money that was actually spent in the previous year. So I would say to the gentleman the base line for spending is the 1995 appropriated amount. And what we are attempting to do is hold it in line with the 1995 appropriated amount.

If you are saying that by holding it in that line, we will not allow the projected increases out into the future, the gentleman is absolutely correct. Because I think in order to get the budgetary house in order, we are, in fact, going to have to begin to consider not what we want to spend for programs but what we are actually spending on programs and that the baseline has to be the amount of money actually being spent.

Washington, for too long, has decided that going from \$20 a year of spending to \$22 a year of spending is not an increase, if what they wanted was \$25 a year. And in our view, what we think we ought to do is say the \$20 that we are spending this year is in fact the proper base line.

□ 1615

Mr. BROWN of California. Mr. Chairman, if the gentleman will continue to yield, I would ask the gentleman, has that action been taken by the Committee on the Budget, and does it apply to all categories of spending?

Mr. WALKER. Reclaiming my time, Mr. Chairman, the gentleman is correct. The Committee on the Budget has been working within its deliberations.

The CHAIRMAN. The time of the gentleman from Pennsylvania [Mr. WALKER] has expired.

(At the request of Mr. Brown of California and by unanimous consent, Mr. WALKER was allowed to proceed for 3 additional minutes.)

Mr. WALKER. Mr. Chairman, with the exception of Social Security, every other account is being calculated based upon 1995 spending as the baseline.

Mr. BROWN of California. Including Medicare?

Mr. WALKER. Medicare would be included in that particular area as well, that is right.

Mr. BROWN of California. If the gentleman will yield further, Mr. Chairman, so the policy of the Committee on the Budget would be to keep Medicare at the present 1995 levels?

Mr. WALKER. Our intention on Medicare is to reform Medicare and transform the program so it can live within the bounds over the next 7 years of spending \$1½ trillion.

That would in fact be an increasing kind of program, and we think we can manage that within a balanced budget, but in terms of calculating it, we are not saying that everything is going to be held at the 1995 baseline, we are simply saying that is the baseline which we use. Some things will go above that baseline, some will go below, but the

fact is we are not going to use an accelerating baseline for what we are doing.

In the case of Medicare, simply the demographics of the account will have it go up, so Medicare will actually be spending more in the year 2002 than it spends in 1995, but then that will be an increase.

Mr. BROWN of California. I appreciate the gentleman's clarification, Mr. Chairman. I think this colloquy has helped the Members to understand the situation. I do not agree with the gentleman that the 1995 baseline is the one that will finally be in effect for the Department of Energy. I do not know at this point.

Mr. WALKER. I think it will probably be lower, I would say to the gentleman, and the fact is that the 1995 baseline therefore may be a figure higher than where we are when we finally come out of the budget process, so all we are trying to do here is to make certain that the Department understands that as this program is authorized, it is being authorized within the accounts that are presently available, not as add-on spending.

Mr. VOLKMER. Mr. Chairman, will the gentleman yield?

Mr. WALKER. I am happy to yield to the gentleman from Missouri [Mr. VOLKMER].

Mr. VOLKMER. Mr. Chairman, the total amount given in this subsection B applies to all research and development activities of the Department of Energy, is that correct?

Mr. WALKER. The gentleman is correct.

Mr. VOLKMER. Mr. Chairman, since I have taken a leave of absence from the Committee on Science, normally the Committee on Science annually puts out a bill for research and development, an authorization bill. Does the gentleman plan to do that this year?

Mr. WALKER. Sure, we are going to put out an authorization bill.

Mr. VOLKMER. Do all the programs within that bill have to do with the same figure?

Mr. WALKER. We will in fact have an authorization bill that will include these accounts, that is correct.

Mr. VOLKMER. Include all these accounts?

Mr. WALKER. Sure.

Mr. VOLKMER. So the figure that the gentleman has here will be basically, first there is the budget to come yet. Before we do the authorization bill, we are going to have the budget. The budget may say more or less, I would guess less, less than the figure you have here, is that correct?

Mr. WALKER. That is correct, it could be.

Mr. VOLKMER. When the committee does the authorization bill, that figure may be more or less?

The CHAIRMAN. The time of the gentleman from Pennsylvania [Mr. WALKER] has expired.

(At the request of Mr. VOLKMER and by unanimous consent, Mr. WALKER

was allowed to proceed for 2 additional minutes.)

Mr. VOLKMER. Mr. Chairman, will the gentleman yield?

Mr. WALKER. I Yield to the gentleman from Missouri.

Mr. VOLKMER. Mr. Chairman, is it correct that this will be done one way or another, when we do the authorization bill?

Mr. WALKER. The gentleman is correct, we will do both, and when we do the authorization bill.

Mr. VOLKMER. Mr. Chairman, if the gentleman will continue to yield, so that figure may or may not, depending on the will of the House, be the figure that is finally determined at a later date?

Mr. WALKER. Sure.

Mr. VOLKMER. So this figure that we have of the 1995 level, which I understand is something like \$3.3 billion, is only in this bill, Mr. Chairman, but we are going to have another bill later on and a budget that could say it is different, is that correct?

Mr. WALKER. We are authorizing a program here. What we want to do is make certain that as we authorize the program, it is not add-on spending. That is the only signal we are sending. It may well be this program will have to survive within reduced cuts or within a reduced budget in the future, sure.

Mr. VOLKMER. Also, that in that authorization bill that comes on, this whole program can be once again reexamined within that bill?

Mr. WALKER. Sure, absolutely. It is going to have to face the same kind of prioritization as everything else. The fact is this is a program that the Department has refused to prioritize in the past. What we are trying to do now is give it a new sense of priority within what the Department does. That is subject to all of the budget restraints.

However, the only point I am making here in opposing the gentleman's amendment is if we take off the cap we have in the bill, what that suggests is that we want this program as an addon, and in my view, we ought not be out here considering an add-on. We ought to be out here considering what the priorities are, where we ought to spend money in the Energy Department.

In my view, one of those priorities ought to be hydrogen. Others may disagree. There were some people who just voted a few minutes ago to not prioritize hydrogen. They voted to reduce the priority for hydrogen. They are antihydrogen. I understand that. That is fine. That is their sense of priority. I think an environmentally friendly fuel might be something that people ought to be for, but evidently over 200 Members did not agree with that. That is fine. That will be their record on this.

However, in this case, what I also want to say is I also do not think there is a need for additional money over and above the caps.

Mr. VOLKMER. Mr. Chairman. I move to strike the requisite number of words.

Mr. Chairman, I will not take my full 5 minutes, but as a result of the discussion I just had with the chairman of the committee, it is very apparent to me that we are going to have to rehash this whole thing over again if and when we ever get to a full authorization bill for all the research and development programs, because at that time every Member is going to be able to look at the total research demonstration projects within the Department of Energy to make a decision whether or not they want to spend \$25 million on this one and \$40 million on this one, or \$15 million on this one and \$25 million on that one. That will be done then.

What I see right here and now, Mr. Chairman, is just an individual bill that the chairman, as he said before, feels very strongly about hydrogen, so we are doing a separate bill rather than waiting for the total authorization bill to come forward, so we are going to be doing it twice.

Really, as far as amendments are concerned, the amendment does not mean we are going to spend a lot more money. Like I said, we still have the total authorization bill to come up. At that time the House may very well vote not for \$3.3 billion, but it may very well vote for \$3 billion, or \$2.5 billion, or \$4 billion. That is going to be the future.

Right now I do not think most Members are ready to vote and decide what the cap will be, because they do not know what all programs are affected and how they are going to be affected. It is only when we get a total authorization bill that we are really able to see how all the programs are affected by the cap. Right now it is just a general discussion.

Mr. Chairman, I personally feel that the amendment of the gentleman from California is a wise amendment at this time. I do think to be honest, that the whole purpose of this bill seems to be to focus on hydrogen, to take the time of this House for 1 day or half a day, and the expense of the House, just to say how good a thing hydrogen research is, when we are going to have to do it all over again maybe in another month.

Mrs. THURMAN. Mr. Chairman. I move to strike the requisite number of words.

Mr. Chairman, if I could, I would like to ask the gentleman from California [Mr. Brown] a question.

In our area, Mr. Chairman, in the Southeastern United States, there has been a big emphasis put on solar energy. I think the American public has also participated in this dialog. It is my understanding that in this bill, whether the money that may be available, whether it is more or less or whatever, that all we are doing here is saying that we are going to prioritize or look only at hydrogen experimentation, and not looking at the dollars

that maybe could be spend in solar or nuclear fusion or any of those? Is that my understanding of this issue here?

Mr. BROWN of California. Would the gentlewoman yield, Mr. Chairman?

Mrs. THURMAN. I yield to the gentleman from California.

Mr. BROWN of California. Mr. Chairman, it would appear that what this bill before us does is to focus entirely on hydrogen, and the gentleman from Pennsylvania, the chairman of the committee, has indicated that legislation authorizing these other programs would be brought forward later.

This is in part the problem that I have with the bill, although my own interest in hydrogen is such that I would overlook the fact that it does not contain the others except that this bill also forces a reduction in all of these others, which I do object to.

Mr. Chairman, in the last energy authorization bill that was passed, which was in 1992, we carefully laid out the authorizing levels for all of the major programs. We increased solar, for example. We increased some of the other categories of research. We cut some of the older ones, as the gentleman from Pennsylvania [Mr. WALKER] has indicated he wants to do. Coal research is cut back, for example, and fossil research in general.

In other words, in that authorization bill in 1992, Mr. Chairman, we did prioritize and gave general policy directions. This bill does not. It gives a general policy direction for hydrogen and then it says in a blanket fashion "cut \$250 million off of everything

That is not prioritizing. else.''

Mrs. THURMAN. Regaining my time, Mr. Chairman, does that mean that appropriations of somebody other than the committee of substance would actually make the determination as to those dollars, so we would lose the expertise of the committee as far as this appropriation goes?

Mr. BROWN of California. Of course. I have confidence in the good faith of the gentleman from Pennsylvania [Mr. WALKER] that we would bring along an authorization bill that would deal with these others. In the absence of that, however, this would merely provide to the Committee on Appropriations complete discretion as to what they would do with the remainder of that budget item.

Mrs. THURMAN. I thank the gentleman.

The CHAIRMAN. The question is on the amendment offered by the gentleman from California [Mr. BROWN].

The question was taken; and the chairman announced that the noes appeared to have it.

RECORDED VOTE

Mr. VOLKMER. Mr. Chairman, I demand a recorded vote.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 155, noes 257, not voting 22, as follows:

Nethercutt

Neumann

Norwood

Nussle

Obey

Orton

Oxley

Packard

Payne (VA)

Parker

Paxon

Petri

Pickett

Pombo

Porter

Pryce

Quinn

Ramstad

Regula

Roberts

Roemer

Roukema

Roth

Royce

Salmon

Sanford

Schaefer

Seastrand

Shadegg

Shaw

Shavs

Shuster

Schiff

Riggs

Quillen

Portman

Ney

[Roll No. 307] AYES-155

Abercrombie Furse Gejdenson Ackerman Barcia Gephardt Beilenson Gibbons Bentsen Gonzalez Berman Gordon Bevill Green Bilbray Gutierrez Bishop Harman Bonior Borski Hefner Hinchey Boucher Browder Holden Brown (CA) Hover Jackson-Lee Brown (FL) Bryant (TX) Chapman Johnston Clayton Clement Kaniorski Clyburn Kaptur Coleman Collins (IL) Collins (MI) Kennelly Kildee Kleczka Conyers Costello Coyne Klink Cramer LaFalce de la Garza Lantos DeFazio Lewis (GA) DeLauro Dellums Lipinski Lofgren Deutsch Lowey Dicks Maloney Dingell Manton Dixon Markey Doggett Martinez Dooley Mascara Doyle Matsui Durbin McCarthy Engel McDermott Eshoo McHale Evans McKinney Meek Farr Fattah Mfume Miller (CA) Fazio Fields (LA) Mineta Filner Mink Mollohan Flake Foglietta Murtha Ford Nadler Frank (MA) Neal

Frost

Chrysler

Clinger

Olver Ortiz Owens Pallone Pastor Payne (NJ) Pelosi Pomerov Poshard Hastings (FL) Rahall Rangel Reed Reynolds Richardson Rivers Johnson (SD) Rose Johnson, E. B. Roybal-Allard Sabo Sanders Kennedy (MA) Sawyer Schroeder Kennedy (RI) Schumer Scott Serrano Skaggs Slaughter Stokes

Studds

Stupak

Tanner

Tejeda

Torres

Towns

Tucker

Vento

Thornton

Thurman

Torricelli

Traficant

Velazquez

Volkmer Ward

Watt (NC)

Waxman

Williams

Wilson

Wyden

Wynn

Yates

Woolsey

Kingston Klug Knollenberg Kolbe LaHood Largent Latham Laughlin Lazio Leach Levin Lewis (CA) Lewis (KY) Lightfoot Lincoln Linder Livingston LoBiondo Longley Lucas Luther Manzullo Martini McCollum McCrery McDade McHugh McInnis McIntosh McKeon McNulty Meehan Metcalf Meyers Mica Miller (FL) Minge Molinari Montgomery Moorhead Morella Mvers Myrick

Sisisky Skeen Skelton Smith (MI) Smith (NJ) Smith (TX) Smith (WA) Solomon Souder Spence Spratt Stearns Peterson (FL) Stenholm Peterson (MN) Stockman Stump Talent Tate Tauzin Taylor (MS) Taylor (NC) Thomas Thornberry Radanovich Tiahrt Torkildsen Unton Visclosky Vucanovich Waldholtz Rohrabacher Walker Walsh Wamp Watts (OK) Weldon (FL) Weldon (PA) Scarborough Weller White Whitfield Wicker Young (AK) Sensenbrenner Young (FL) Zeliff

Zimmer

NOT VOTING-22

Hilliard Baesler Saxton Baldacci Jefferson Stark Thompson LaTourette Becerra Brown (OH) Menendez Waters Clay Moakley Wise Wolf Cox Moran Gallegly Rogers Hall (OH) Ros-Lehtinen

□ 1644

REED and Mr. POMEROY changed their vote from "no" to "ave. So the amendment was rejected.

The result of the vote was announced as above recorded.

The CHAIRMAN. Are there further amendments to the bill?

If not, the question is on the committee amendment in the nature of a substitute, as amended.

The committee amendment in the nature of a substitute, as amended, was agreed to.

The CHAIRMAN. Under the rule, the Committee rises.

Accordingly the Committee rose; and the Speaker pro tempore (Mr. HAST-INGS of Washington) having assumed the chair, Mr. HANSEN, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H.R. 655) to authorize the hydrogen research, development, and demonstration programs of the Department of Energy, and for other purposes, pursuant to House Resolution 136, he reported the bill back to the House with an amendment adopted by the Committee of the Whole.

The SPEAKER pro tempore. Under the rule, the previous question is ordered.

(By unanimous consent, Mr. SOLOMON was allowed to speak out of order.)

ANNOUNCEMENT BY CHAIRMAN OF COMMITTEE ON RULES REGARDING H.R. 961, CLEAN WATER ACT AMENDMENTS OF 1995

Mr. SOLOMON. Mr. Speaker, I ask to address the House to make an announcement.

Next Tuesday, May 9, the Rules Committee will be meeting to consider a rule for H.R. 961, the Clean Water Act Amendments of 1995.

Members should be aware that this rule may include a provision giving priority in recognition to Members who have caused their amendments to be printed in the amendment section of the CONGRESSIONAL RECORD prior to their consideration. In this case, the preprinting of amendments is optional.

Since the bill is expected to be considered on the House floor on Wednesday, May 10, Members should try to have their amendments printed in the CONGRESSIONAL RECORD by Tuesday, May 9. Amendments to be preprinted should be signed by the Member, and submitted at the Speaker's table.

Members should use the Office of the Legislative Counsel to ensure that their amendments are properly drafted and should check with the Office of the Parliamentarian to be certain that their amendments comply with the rules of the House. It is not necessary to submit amendments to the Rules Committee or to testify.

The SPEAKER pro tempore. Is a separate vote demanded on any amendment to the committee amendment in the nature of a substitute adopted by the Committee of the Whole? If not, the question is on the amendment.

The amendment was agreed to.

The SPEAKER pro tempore. question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, was read the third time, and passed.

The title of the bill was amended so as to read: "A bill to authorize basic research, development, and demonstration on hydrogen as a fuel, and for other purposes.

A motion to reconsider was laid on the table.

FURTHER APPOINTMENT OF CON-FEREE ON H.R. 1158. EMERGENCY SUPPLEMENTAL APPROPRIA-TIONS FOR ADDITIONAL DISAS-TER ASSISTANCE AND MAKING RESCISSIONS FOR FISCAL YEAR

The SPEAKER pro tempore. Pursuant to the authority of the Speaker under clause 6-F of rule 10, without objection, the Chair appoints the gentleman from California [Mr. PACKARD] as a manager on the part of the House in the committee of conference on H.R.

There was no objection.

The SPEAKER pro tempore. The Clerk will notify the Senate of the change in conferee.

NOES-257

Oberstan

Allard Coble Gekas Andrews Coburn Geren Collins (GA) Archer Gilchrest Armey Combest Gillmor Bachus Condit Gilman Baker (CA) Baker (LA) Cooley Goodlatte Crane Goodling Ballenger Crapo Goss Barr Cremeans Graham Barrett (NE) Cubin Greenwood Cunningham Barrett (WI) Gunderson Bartlett. Danner Gutknecht Hall (TX) Davis Barton Hamilton Bass Deal Bateman DeLay Hancock Diaz-Balart Bereuter Hansen Bilirakis Dickey Doolittle Hastert Hastings (WA) Bliley Blute Dornan Hayes Hayworth Boehlert Dreier Boehner Duncan Hefley Bonilla Dunn Heineman Edwards Herger Bono Brewster Ehlers Hilleary Brownback Ehrlich Hobson Emerson English Bryant (TN) Hoekstra Bunn Hoke Bunning Ensign Horn Hostettler Burr Everett Burton Houghton Ewing Fawell Buyer Hunter Fields (TX) Hutchinson Callahan Calvert Flanagan Hvde Foley Inglis Camp Canady Forbes Istook Cardin Fowler Jacobs Castle Fox Johnson (CT) Franks (CT) Chabot Johnson, Sam Chambliss Franks (NJ) Jones Chenoweth Frelinghuysen Kasich Christensen Frisa Kelly

Funderburk

Ganske

Kim